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THE FRANKLIN INSTITUTE

Standard Electrical PORCELAIN

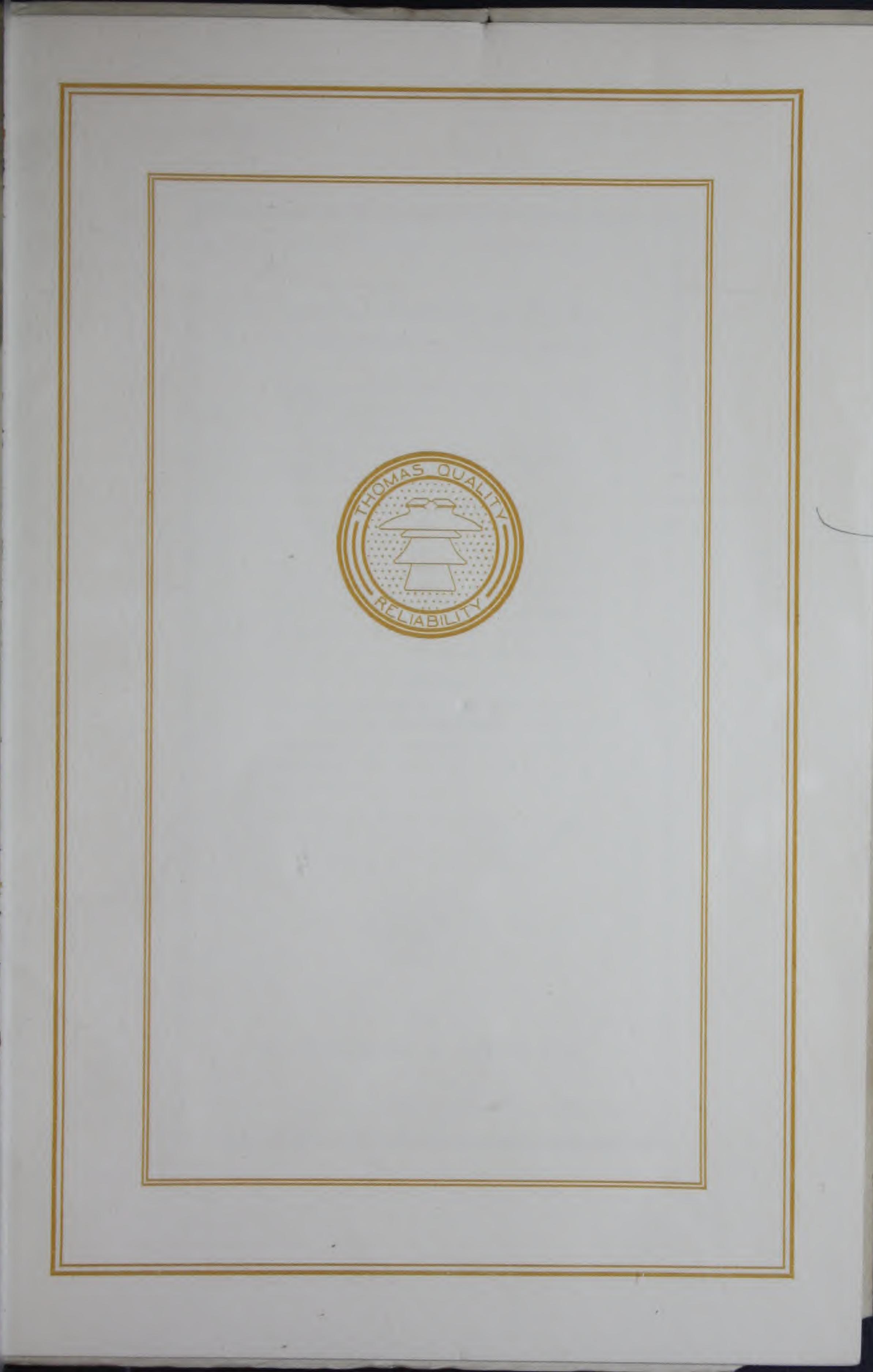


R. Thomas & Sons Company
East Liverpool, Ohio - U. S.A.

MINDSHOOT BOOK



Real Liverpool, Como Campan



THE JOS. BETZ PRINTING COMPANY
EAST LIVERPOOL, OHIO

THE ARC ENGRAVING COMPANY
YOUNGSTOWN, OHIO

G. E. ECKERT EAST LIVERPOOL. OHIO

Special Porcelain Parts

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We maintain a fully equipped department for the production of porcelain specialties, manufactured to the specifications of our trade.

MUCH DEPENDS on the accuracy of the Dies and Tools to be used and it is with great pride that we announce the average term of employment per man in our Machine Shops as being Ten Years. Both shops are superintended by executives who have served Fifteen or more consecutive years in like capacity.

WE ARE, therefore, capably prepared to offer an exceptionally valuable service to those Buyers who demand the Best and have an appreciation for Precision.

PROPOSALS can be furnished promptly upon receipt of blue prints, sketch, model or sample

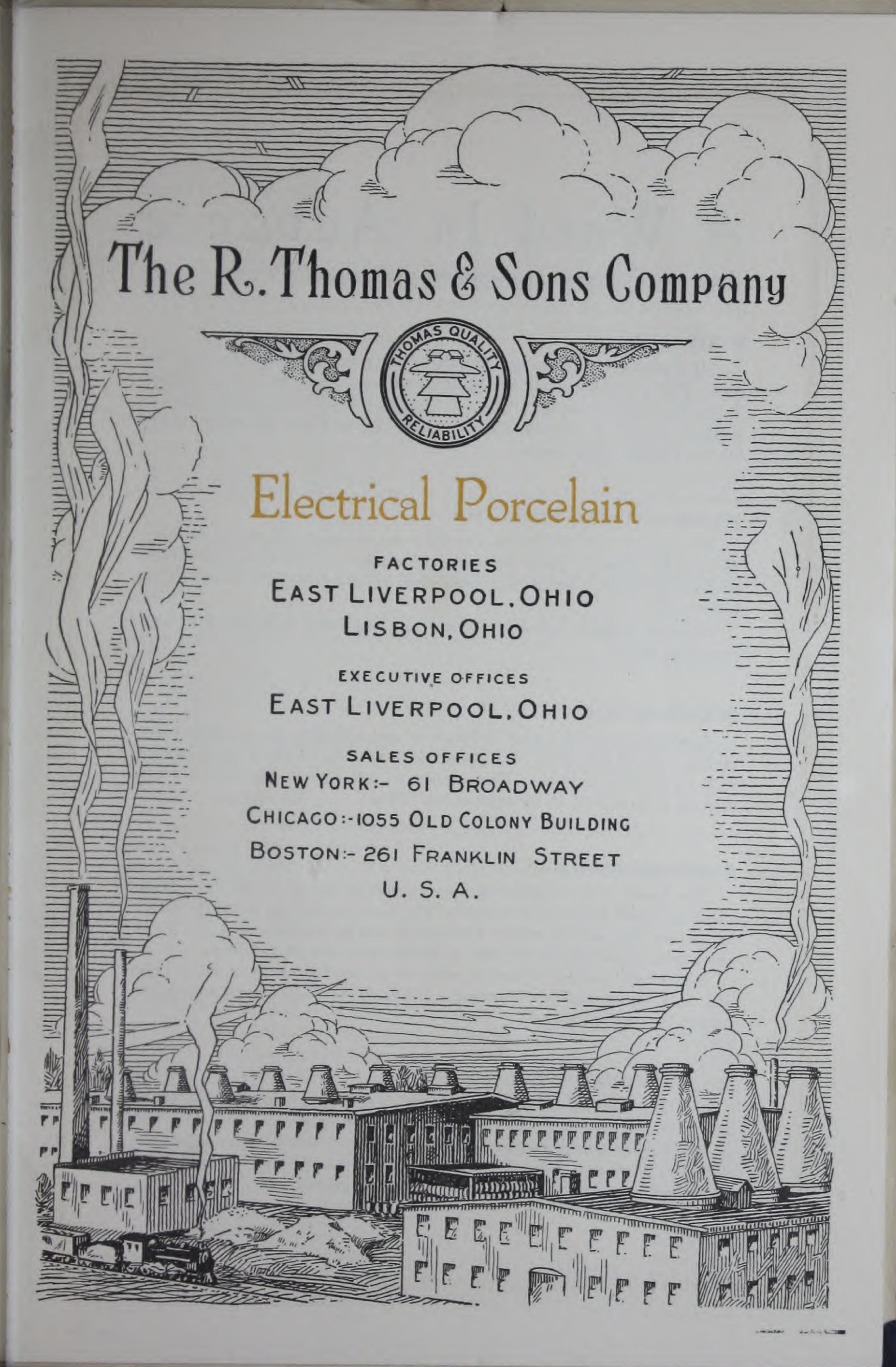


The R. THOMAS & SONS CO.

ESTABLISHED 1873



INCORPORATED 1892





A Word In Advance

PORCELAIN

All designs except tubes are manufactured in our plants by the Dry Process. Best grade materials and skilled workmanship as well as experience insure the highest standard product in Electrical Porcelain by which "Thomas Quality" has been commercially recognized for well over 40 years. Look for the Thomas trade mark.

MANUFACTURING FACILITIES

We operate two of the largest electrical porcelain plants in America. The mother plant is under the direct supervision of the Executive Offices at East Liverpool while a subsidiary plant of equal capacity is located at Lisbon, Ohio.

Shipping facilities are of the best, including three railroads and three river-boat lines.

STANDARD GLAZE

Standard clear white glaze is furnished on all designs except those listed on Pages 25, 26 and all but Telephone Cleats on Page 15 which are furnished with regular brown glaze. These, however, can also be supplied in white glaze at a figure 10% in advance of Net Prices.

STANDARD PACKAGE

The Barrel is the standard package as adopted by us. Aside from being the most economic form of container the barrel more closely approximates in content the unit by which distributor's prefer to order and stock. It also seems preferable on account of facility and ease in handling.

A standard package cannot be made up of assorted pieces or sizes. The quantities designated as comprising a Standard Package are approximately correct but not guaranteed.

PACKAGE DIMENSIONS

Our Standard Barrel is 30 inches (762 mm.) high, has a bilge diameter of 24 inches (609 mm.) and has a 19½ inch (486 mm.) head. This barrel weighs approximately 25 lbs. (11.4 kgs.), metal strappings, etc., necessary for Export Shipments adding about 5 lbs. (2.3 kgs.) The weights given herein are approximately correct but not guaranteed.

PACKAGE VOLUME

Figures for the item of Package Volume should be accurate since Export Shipments at steamer are closely checked in this respect.

The regular formula for calculating the volume of a barrel, although correct for the single package is misleading in quantity lots, since both the head and bilge diameters and the cylindrical shape are considered. The Actual Package Volume of our standard barrel is 6.9 cu. ft. (.195 cu. m.) as figured by the above method.

However, the Packed Volume as it should be estimated by the Exporter should consider the actual space taken up by the package in the hold of the vessel, remembering that barrels will not nest closely together except at the bilge, or in other words a box having a square diameter the equivalent to the bilge diameter of the barrel and being of equal height would consume no more space in quantities than would the barrel. The actual space taken up by our standard barrel (nested in lots) is 10 cu. ft. (.283 cu. m.) as a maximum.

PACKAGE CHARGES

When porcelains are packed in barrels, a charge will be made for each barrel.

When porcelains are packed in boxes or kegs each containing 500 pairs or pieces, a charge will be made for each box or keg.

When porcelains are packed in boxes or kegs each containing 1000 pairs or pieces a charge will be made for each box or keg.

When porcelains are packed in paper boxes, a charge will be made for each box.

All package charges are Net and are subject to no discounts from the invoice price.

EXTRA CHARGES

Due to the extreme cost in handling small orders in our plants, the following conditions are effective.

When order amounts to less than \$5.00 there will be a net advance of 25% plus regular packing charges.

When order amounts to more than \$5.00 and less than Standard Package there will be a net advance of 10% plus regular packing charges.

The minimum charge on any single order will be \$1.00 plus regular packing charges.

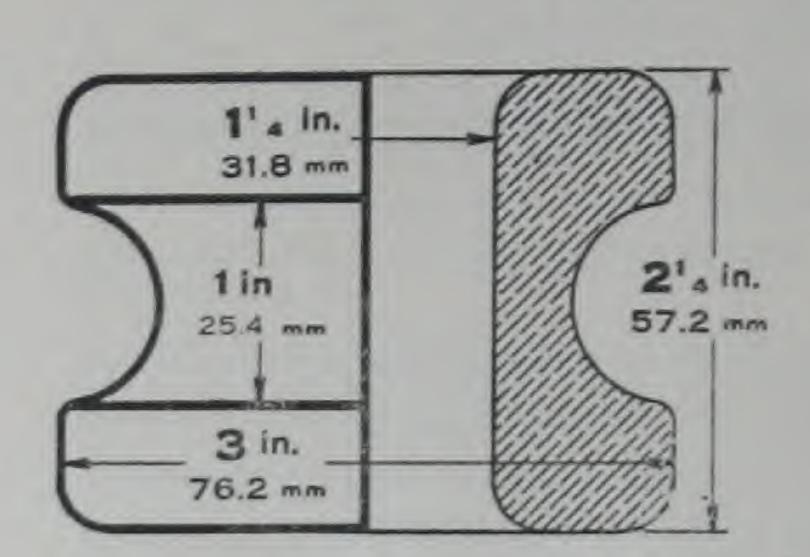
NATIONAL CODE MATERIALS

With this edition we desire to announce the withdrawal of all Old Code designs. For economical reasons as well as a means of eliminating hazardous designs it has been considered best to concentrate our efforts in the production of such materials as will pass Code inspection. We appreciate the co-operative spirit manifest by the trade in response to our initial announcement to this effect and trust that the benefits will be mutual.

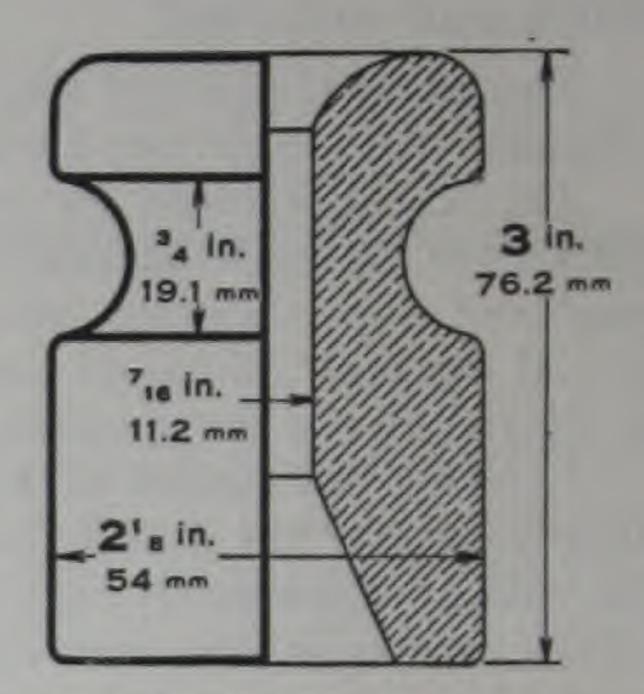
ALL PRICES subject to change without notice.



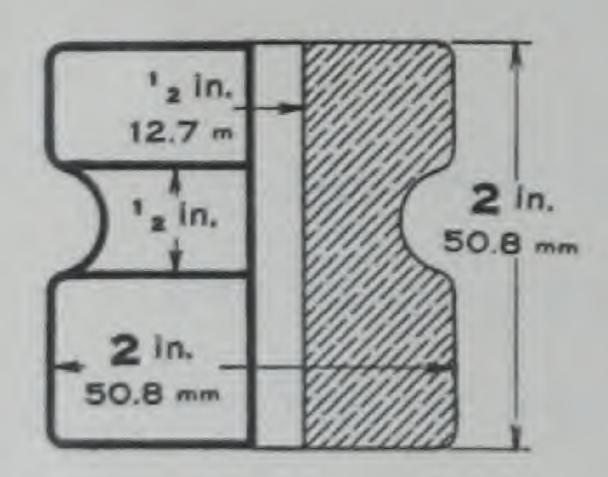
SONS COMPANY



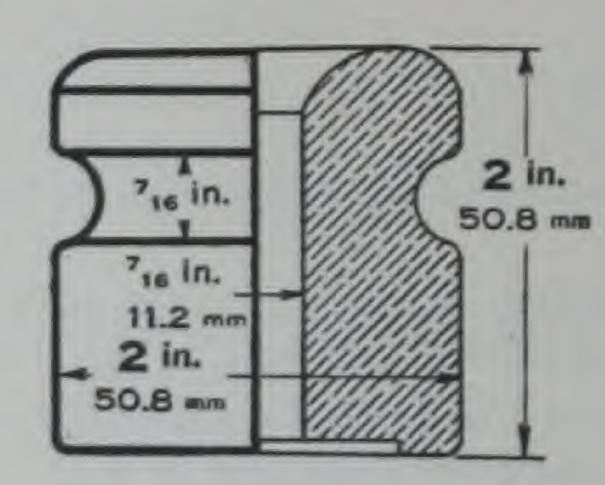
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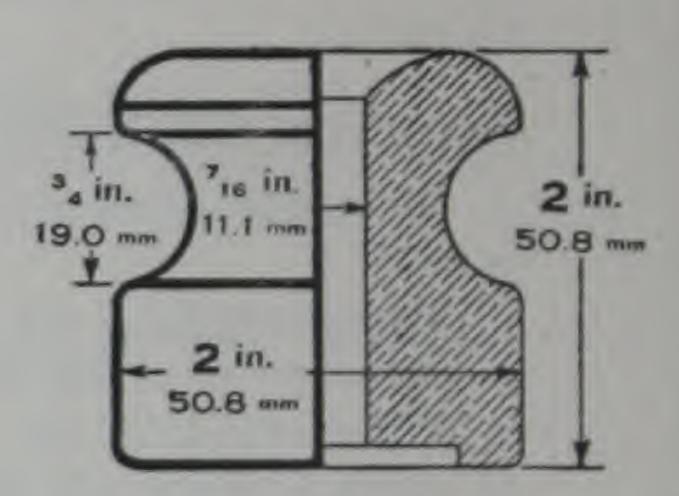
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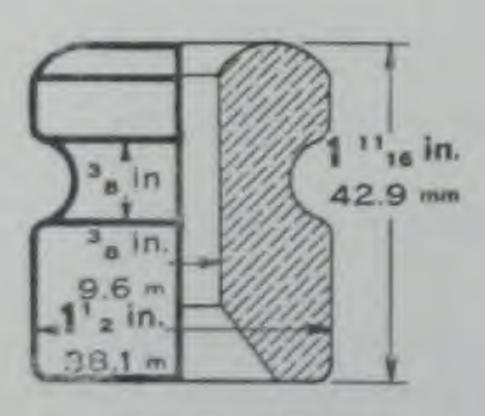
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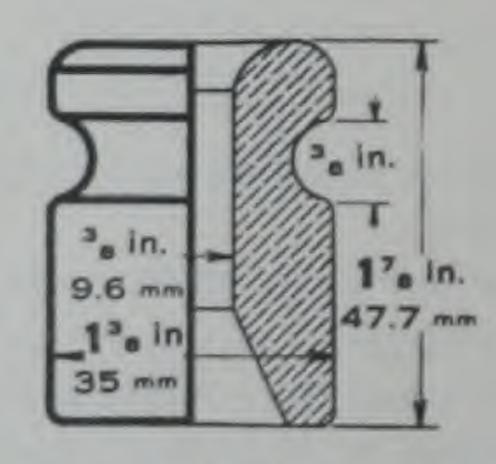
STANDARD No. 3 (Old No. 3½)



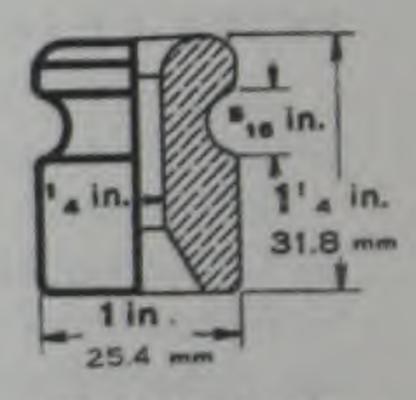
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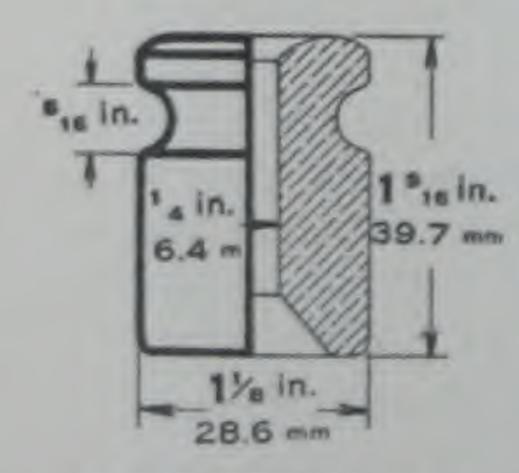
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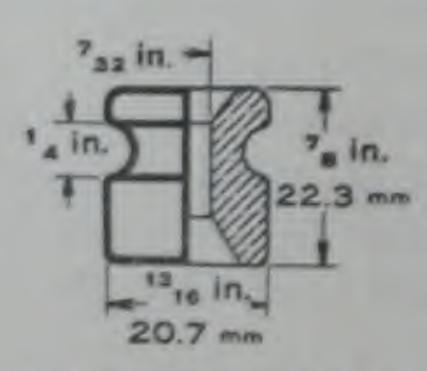
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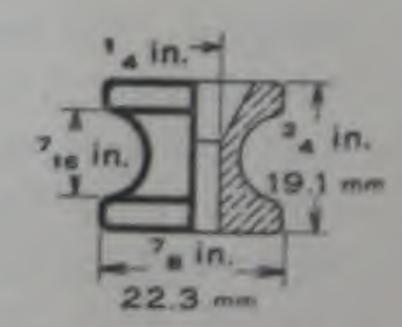
STANDARD No. 5



STANDARD No. 51/2 (New Code)



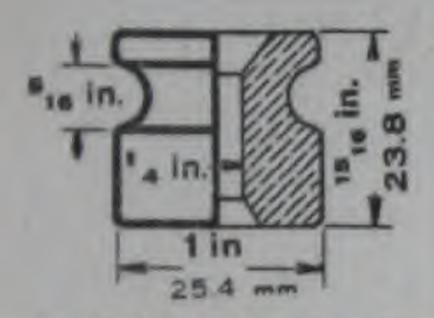
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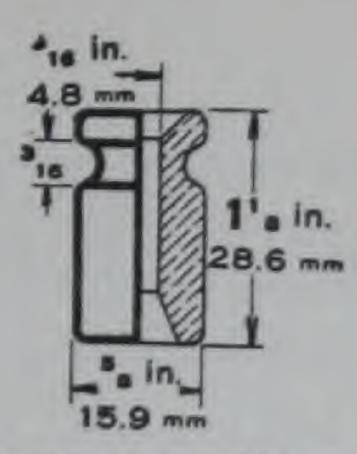
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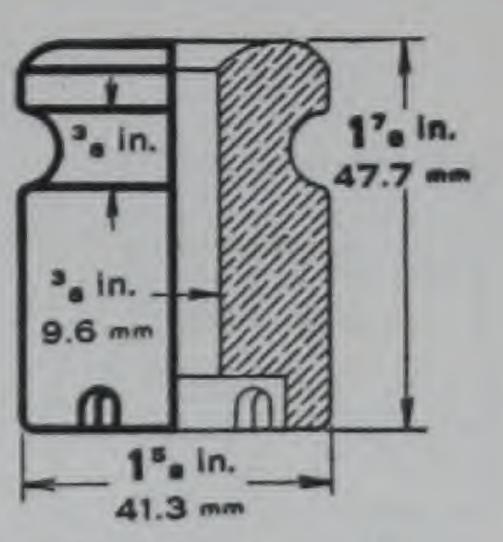
SONS COMPANY



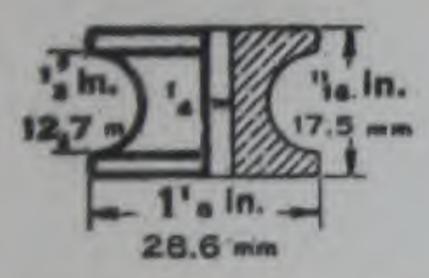
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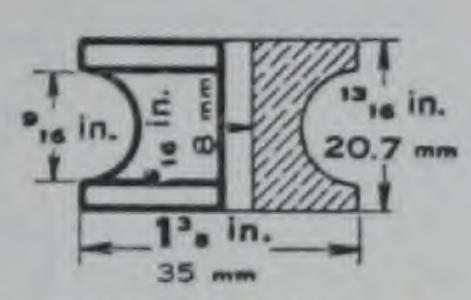
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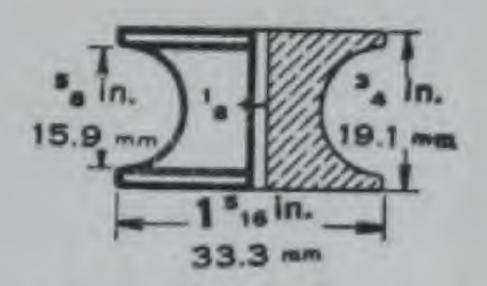
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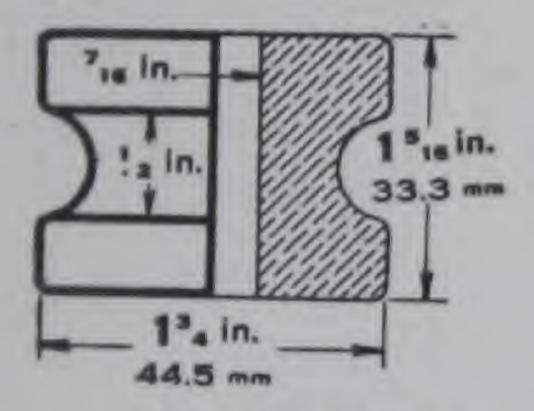
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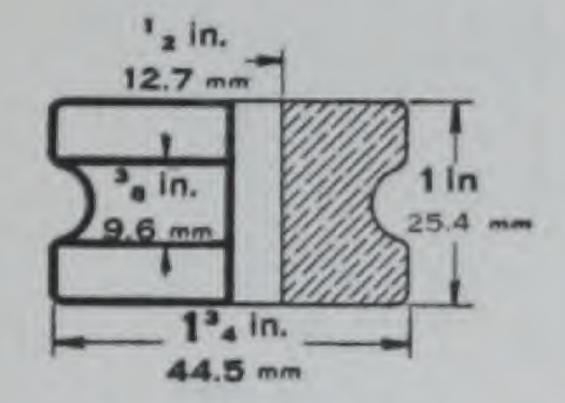
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STANDARD No. 13



STANDARD No. 15

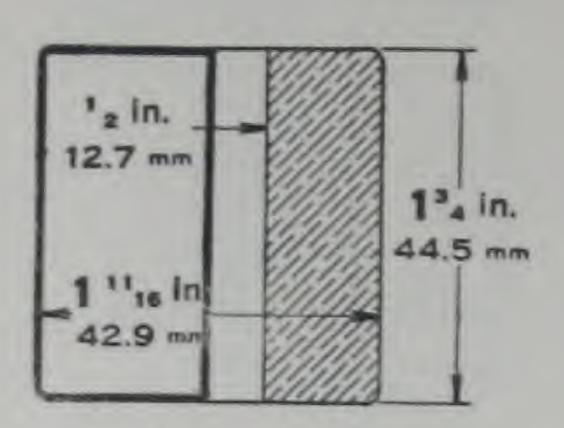


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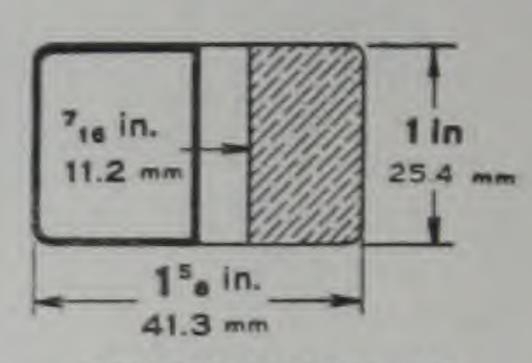
Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight P		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
0	\$300.00	350	310	141	350	360	163	IABIB
1	182.00	600	380	172	420	430	195	IABIC
2	120.00	850	380	172	420	430	195	IABIF
3	110.00	900	395	179	435	445	202	IABIG
31/2	110.00	900	360	163	400	410	186	IA FEJ
4	55.00	1900	375	170	415	425	193	IAHU.
41/2	55.00	2000	360	163	400	410	186	IAHUI
5	29.00	6000	390	177	430	440	200	IAHU.
51/2	38.00	3500	370	168	410	420	191	IAJAJ
6	22.00	13500	425	193	465	475	215	IALOT
7	26.00	15000	330	150	370	380	172	IALOV
8	26.00	8000	335	152	375	385	175	IALOZ
9	25.00	20000	360	163	400	410	186	IALPA
10	75.00	1500	375	170	415	425	193	IAPJI
11	45.00	10000	290	132	330	340	154	IAPKA
12	58.00	5000	235	107	275	285	129	IAPKI
13	81.00	4500	260	118	300	310	141	IATES
15	76.00	2000	375	170	415	425	193	IATEV
16	75.00	2200	380	172	420	430	195	IATFI



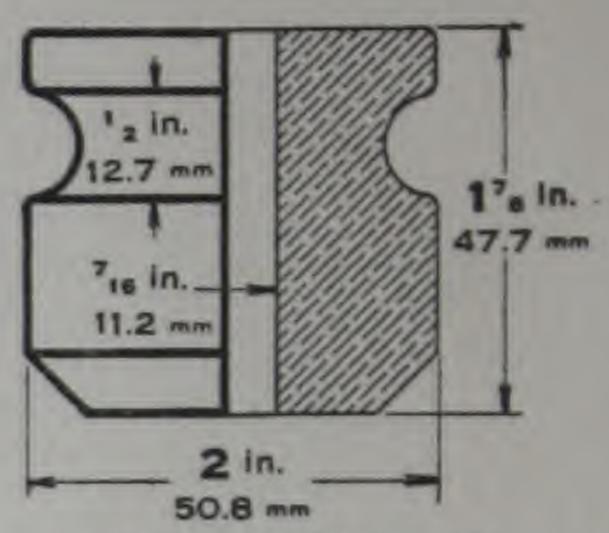
SONS COMPANY



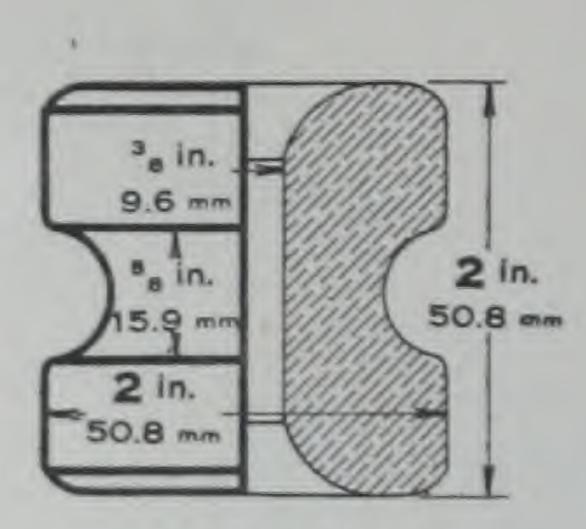
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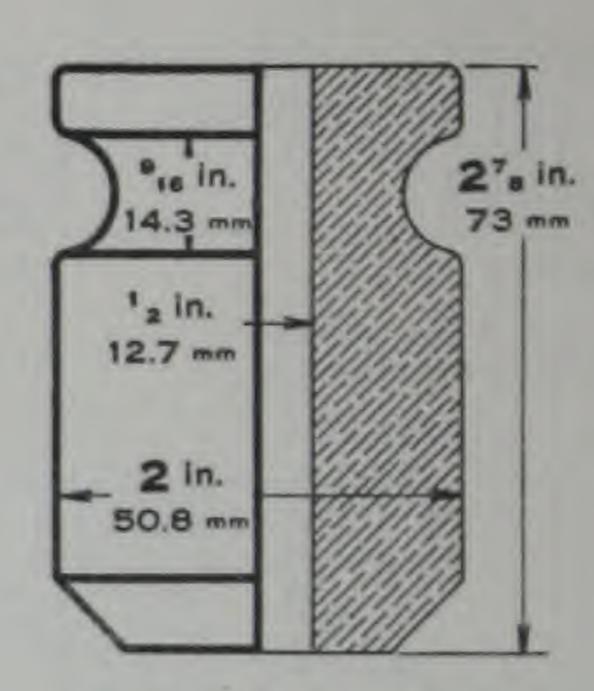
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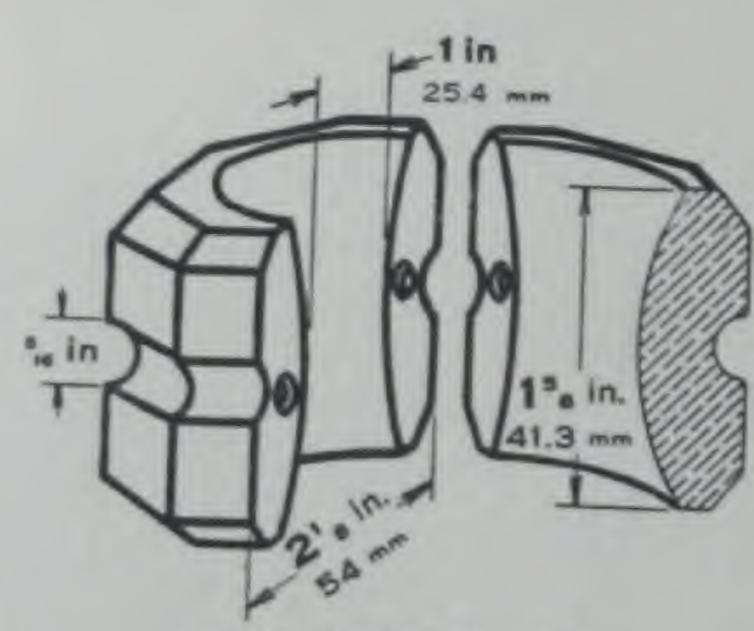
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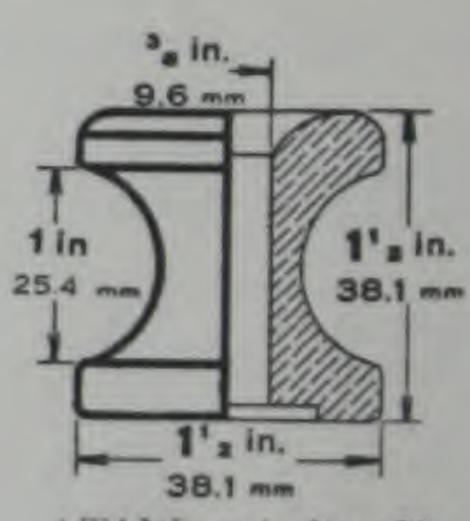
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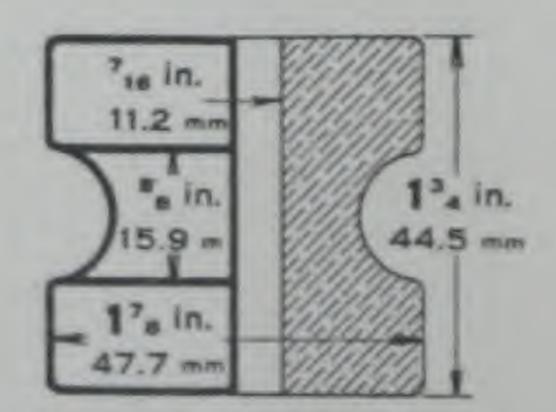
STANDARD No. 21 (BX)



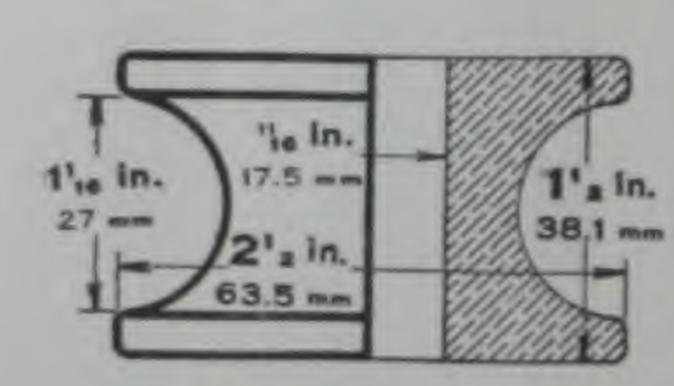
STANDARD No. 22 (Victor)



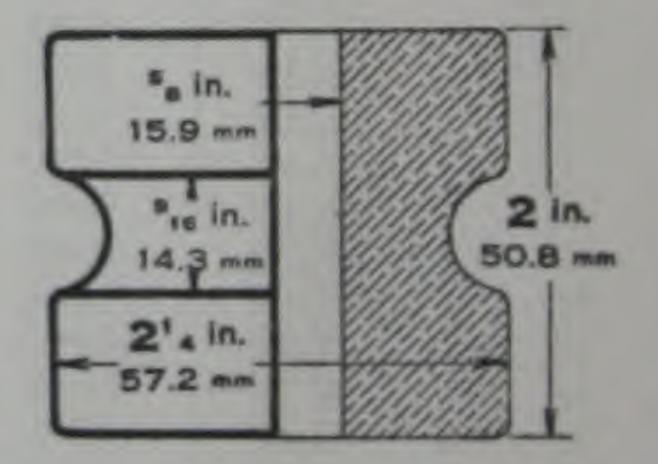
STANDALL No. 23



STANDARD No. 24



STANDARD No. 25

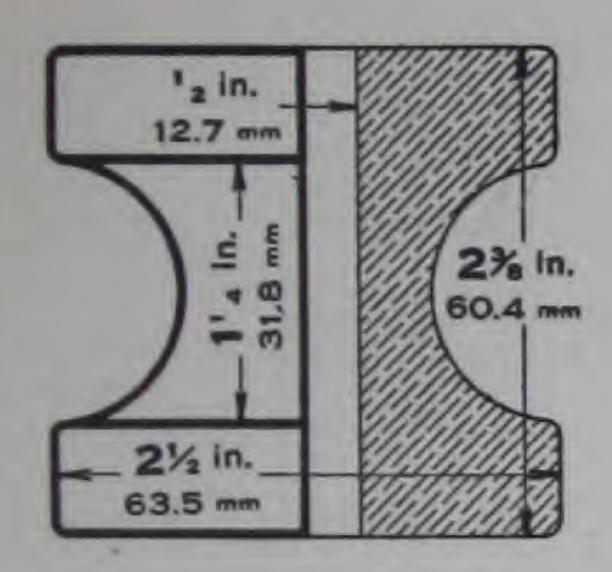


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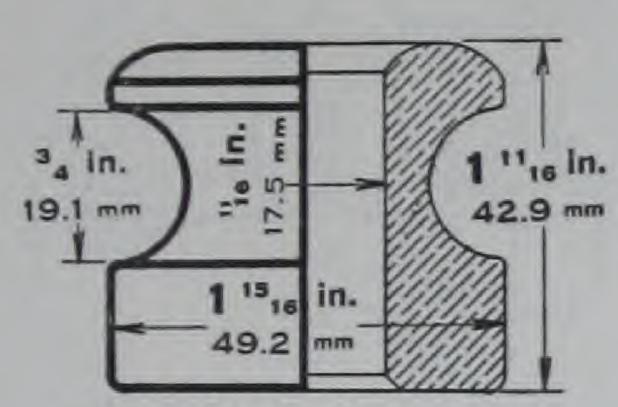


SONS COMPANY

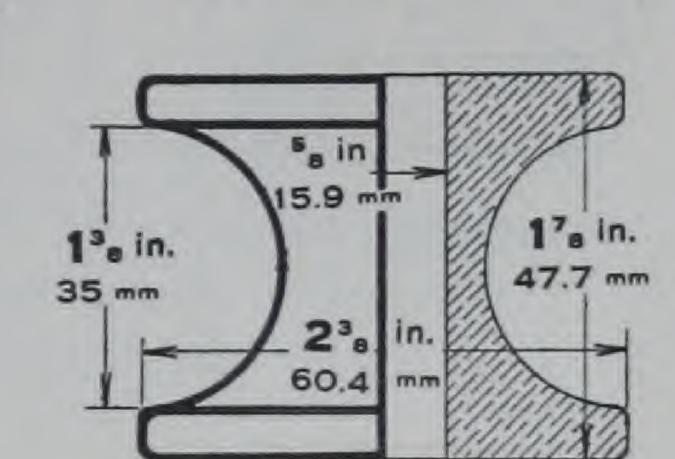
14.3 mm 15.9 mm



STANDARD No. 29



STANDARD No. 30

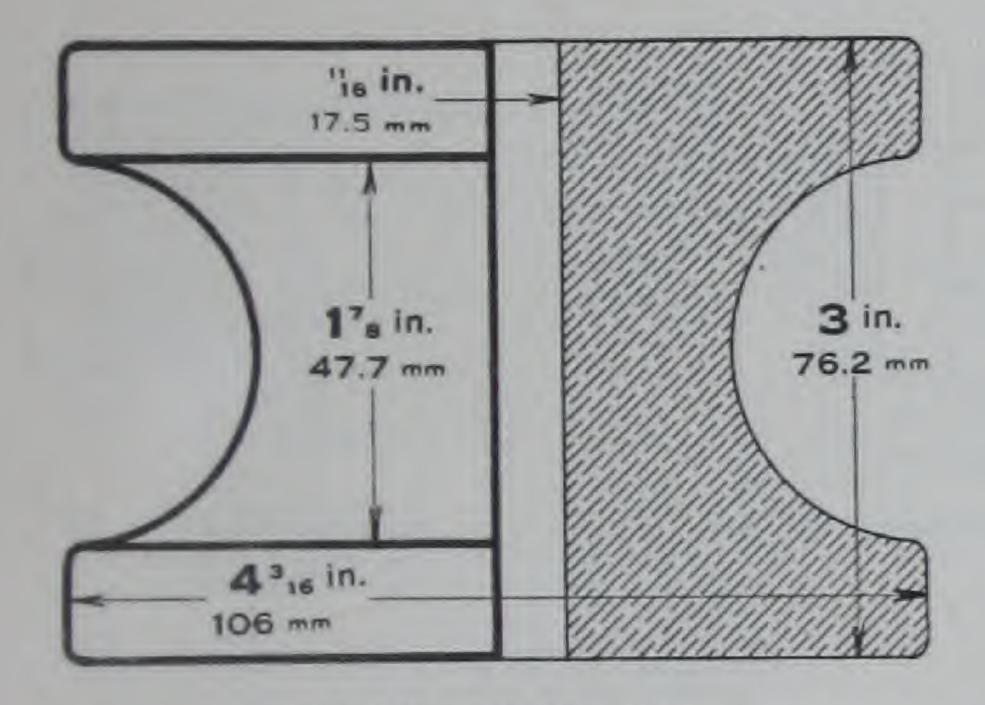


134 in.

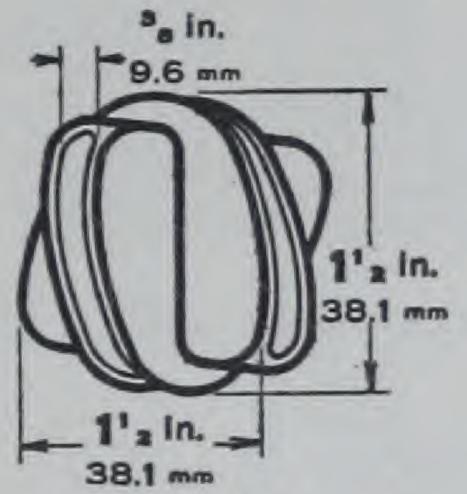
44.5 mm

STANDARD No. 31

STANDARD No. 34



STANDARD No. 32



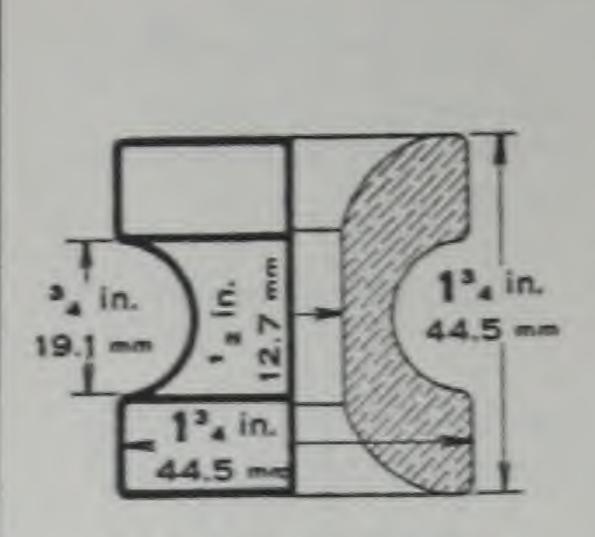
STANDARD No. 35

Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight P		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
17	\$75.00	1200	360	163	400	410	186	IATFY
18	60.00	3000	310	141	350	360	163	IBOEP
19	116.00	850	410	186	450	460	209	IBOES
20	130.00	1000	400	181	440	450	204	IBOEW
21	170.00	600	400	181	440	450	204	IBO FA
22	156.00	1000	360	163	400	410	186	IBSEJ
23	76.00	2000	210	95	250	260	118	IBSEK
24	102.00	1200	385	175	425	435	197	IBSEN
25	142.00	750	290	132	330	340	154	IBSER
26	142.00	700	380	172	420	430	195	IBSET
29	200.00	500	360	163	400	410	186	IBUVC
30	102.00	1000	375	170	415	425	193	IBUVU
31	90.00	2100	210	95	250	260	113	IBUWI
32	655.00	130	285	129	325	335	152	IBUWI
34	176.00	600	355	161	395	405	184	IBZIT
35	275.00	1500	375	170	415	425	193	IBZIV

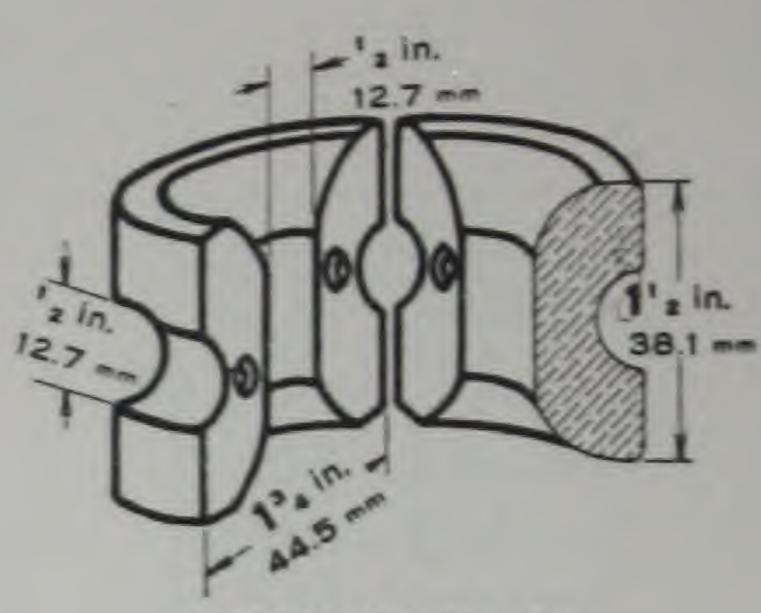
THE R. THOMAS & (1)



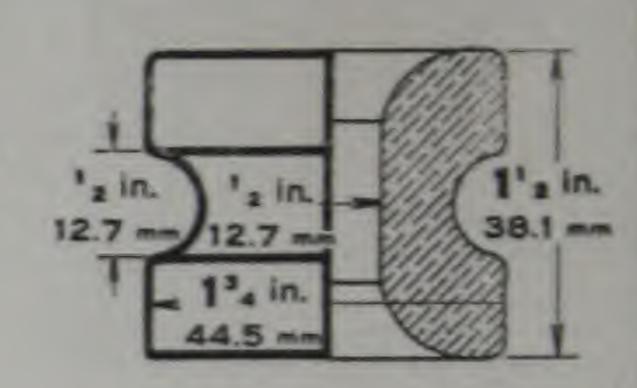
SONS COMPANY



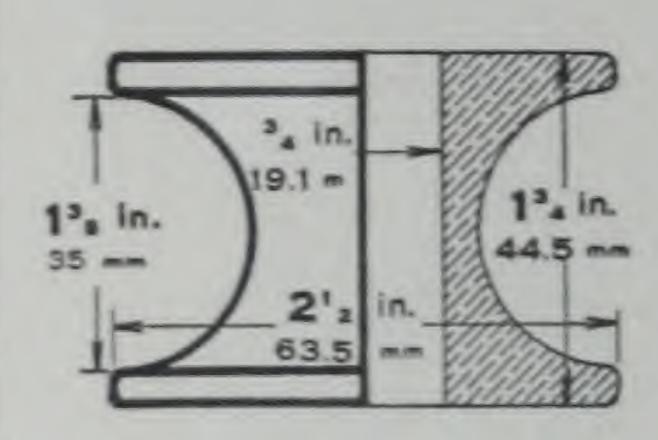
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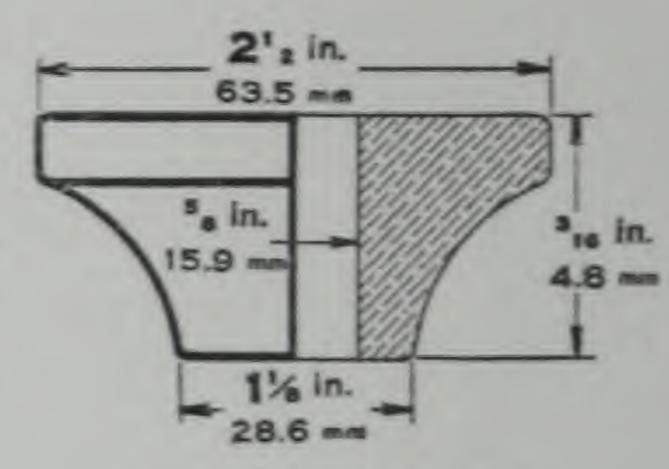
STANDARD No. 37 (Split)



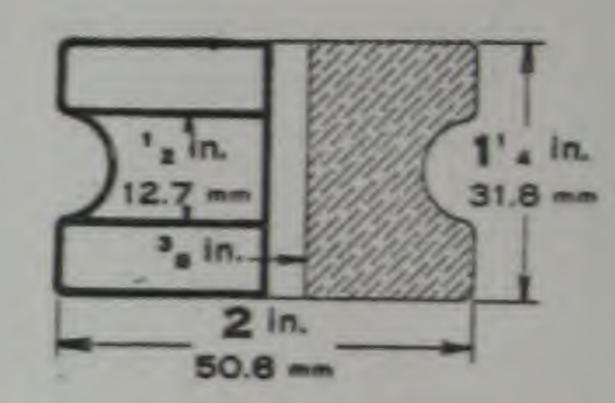
STANDARD No. 37 (Solid)



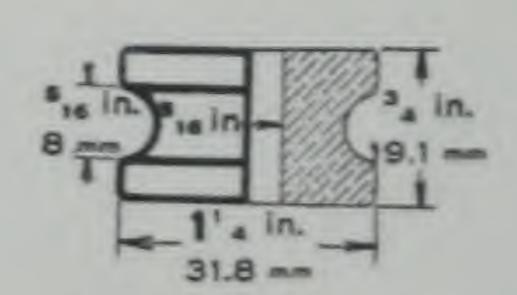
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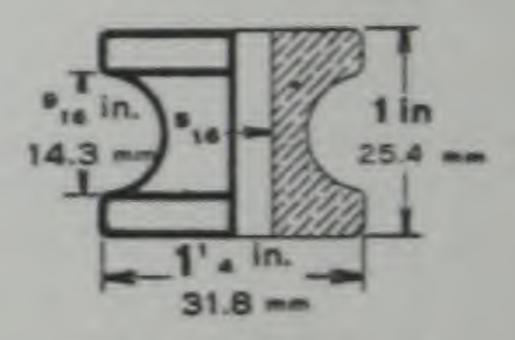
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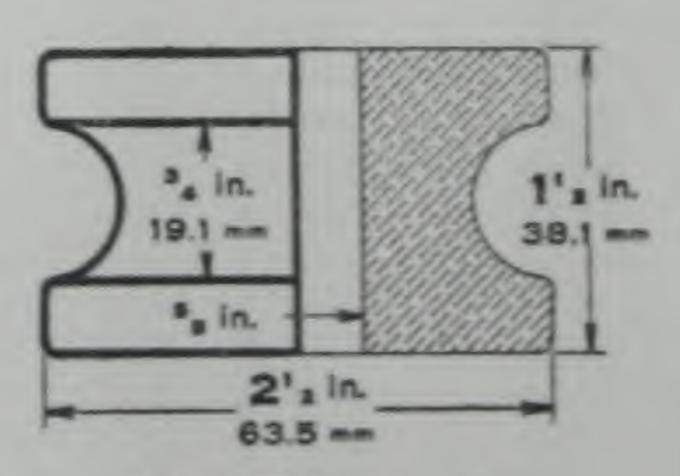
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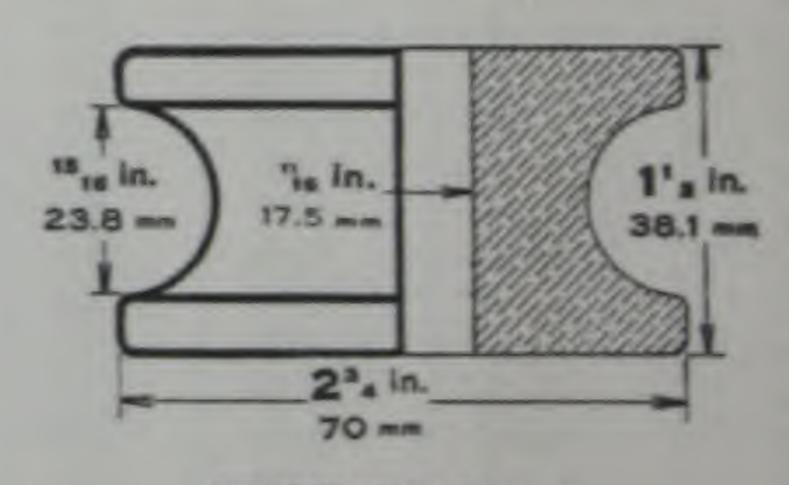
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STANDARD No. 46



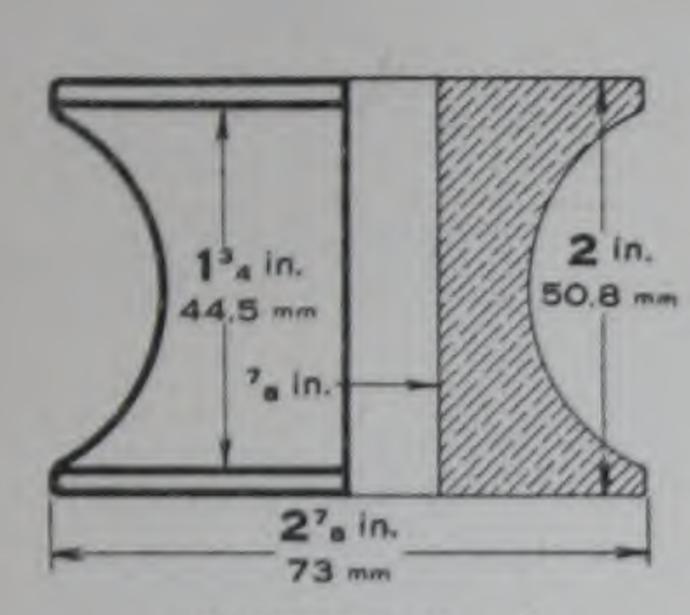
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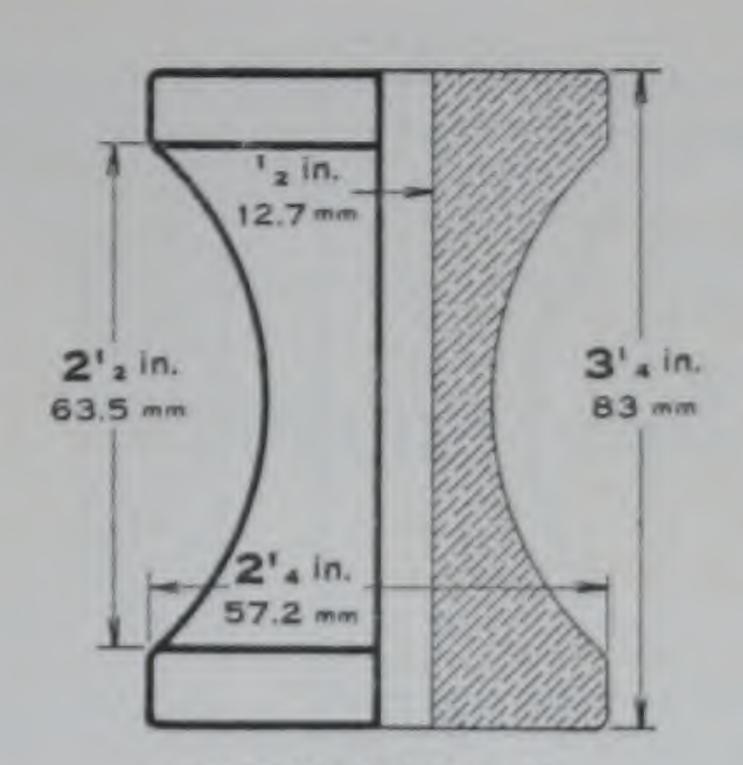
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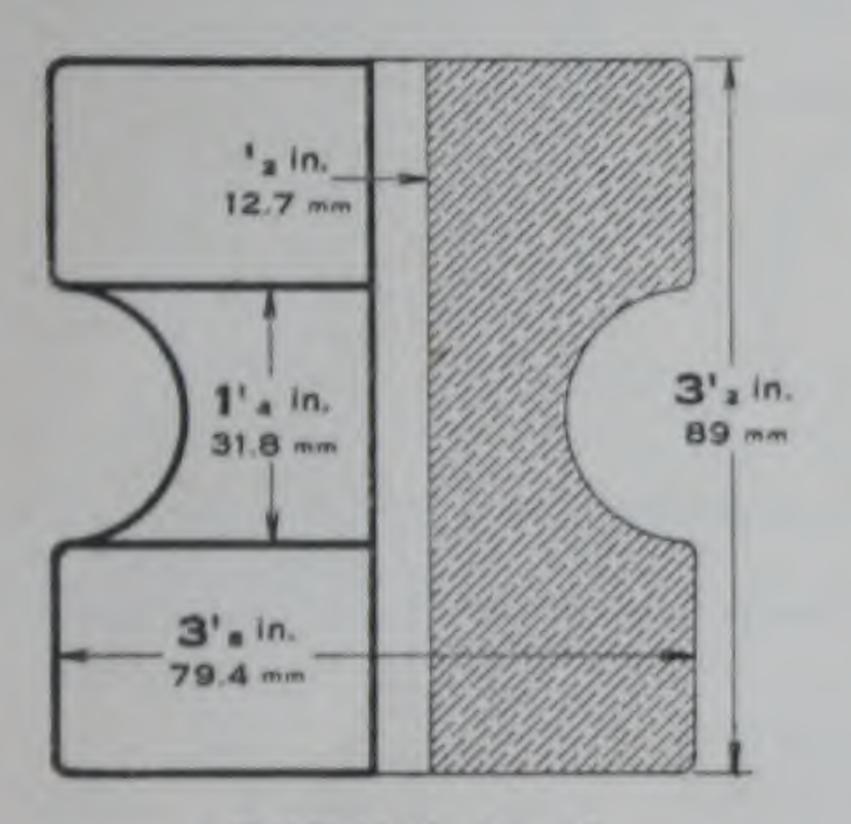
SONS COMPANY



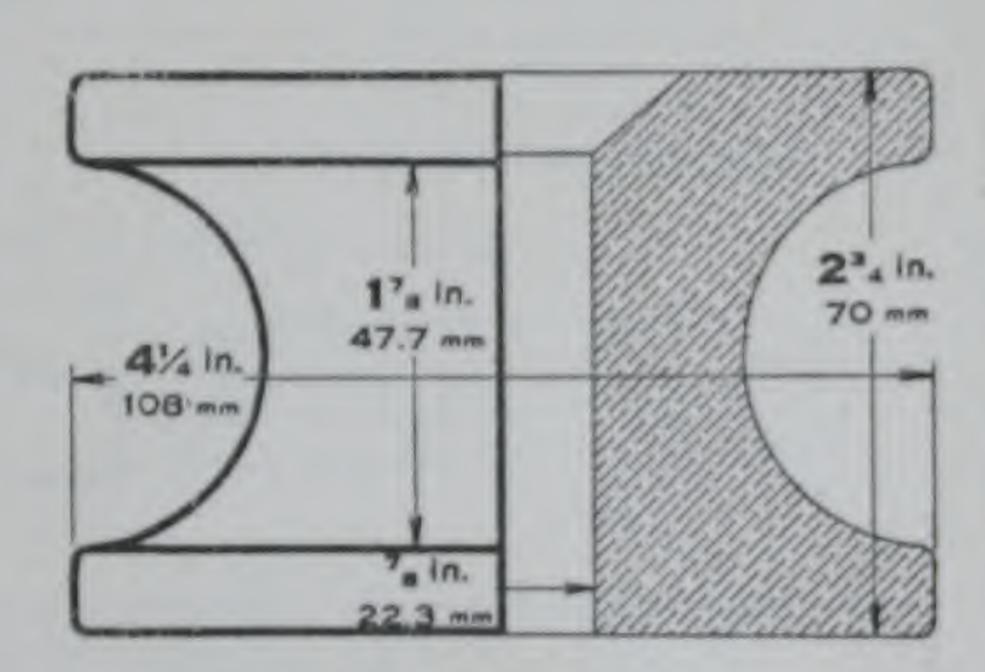
STANDARD No. 50



STANDARD No. 51



STANDARD No. 52



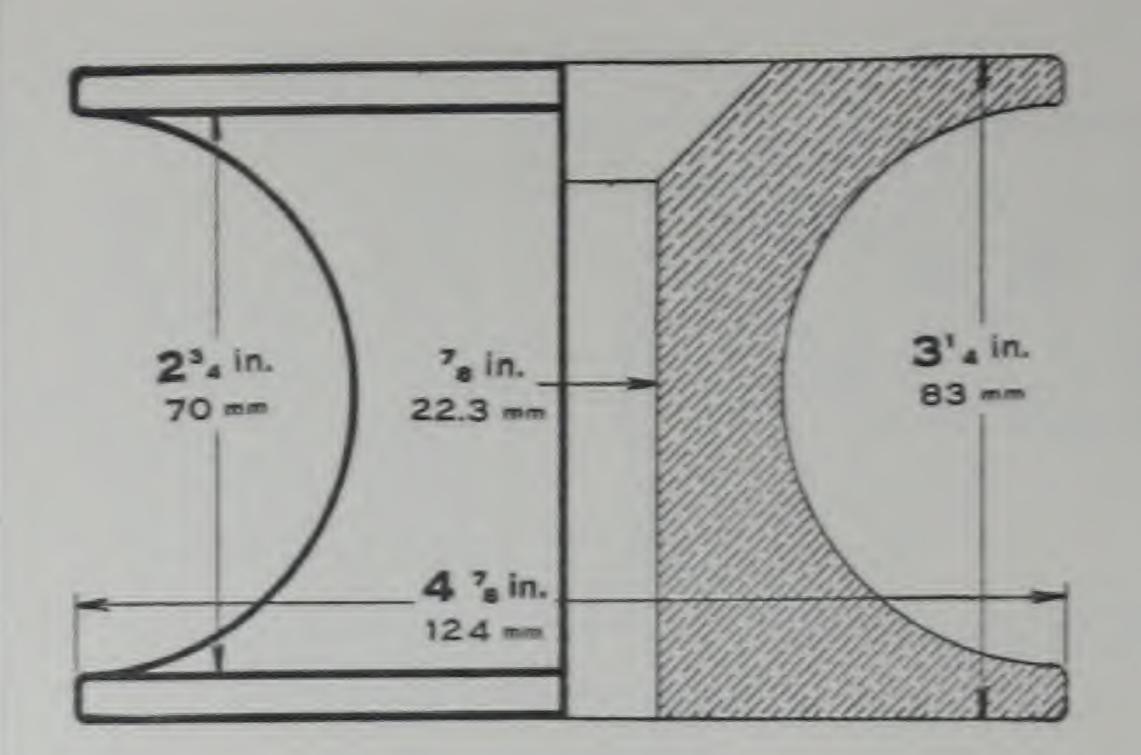
STANDARD No. 53

Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight Pe		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
36	\$90.00	1500	375	170	415	425	193	IBZIX
37 split	114.00	1500	330	150	370	380	172	ICCEV
37solid	90.00	1500	330	150	370	380	172	IBZIZ
39	158.00	650	355	161	395	405	184	ICCIC
40	100.00	2000	360	163	400	410	186	ICCIF
41	95.00	1300	360	163	400	410	186	ICCIG
45	45.00	5000	260	118	300	310	141	ICFEI
46	49.00	4500	310	141	350	360	163	ICFEE
48	142.00	850	410	186	450	460	209	ICFEJ
49	149.00	700	385	175	425	435	197	ICFER
50	196.00	450	360	163	400	410	186	ICIIP
51	209.00	500	260	118	300	310	141	ICIIY
52	397.00	200	360	163	400	410	186	ICIJE
53	650.00	120	240	109	280	290	132	ICIJO

THE R. THOMAS & (LES)

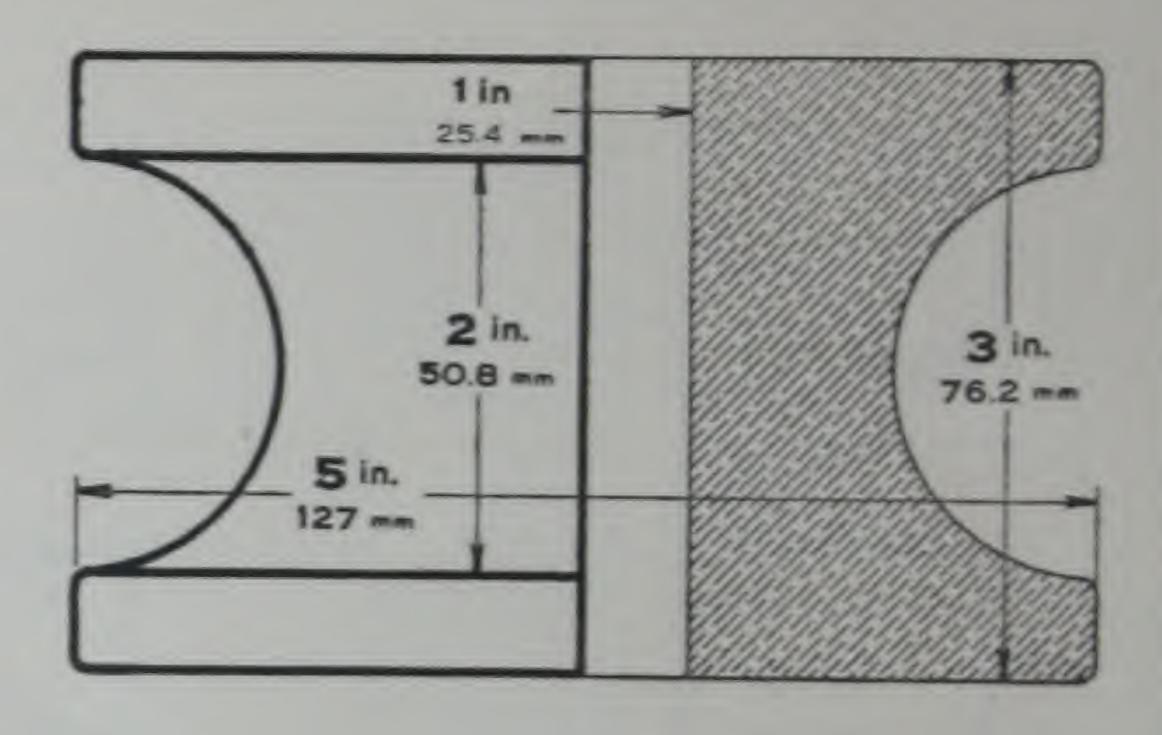


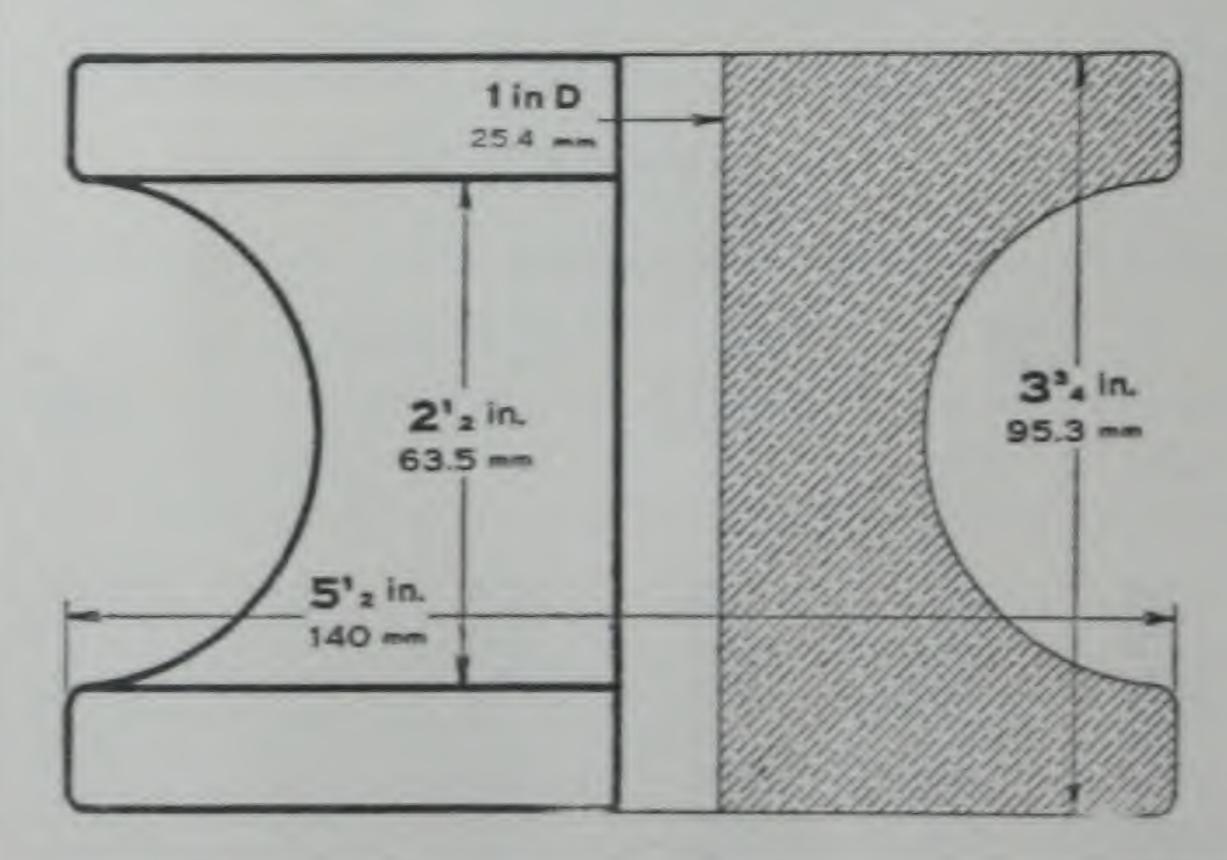
SONS COMPANY



STANDARD No. 54

STANDARD No. 55



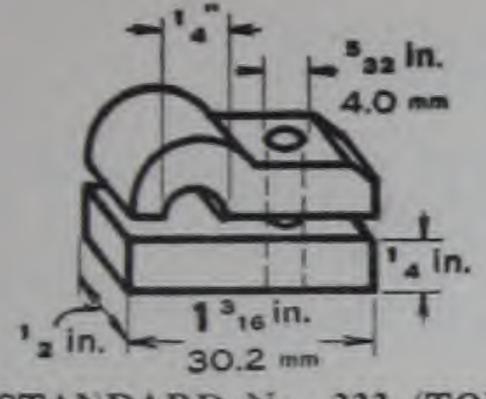


STANDARD No. 56

Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Gross Weight Per Barrel		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
54 55 56	\$881.00 881.00 1355.00	105 100 75	260 285 285	118 129 129	300 325 325	310 335 335	141 152 152	ICLYB ICLYC ICLYF

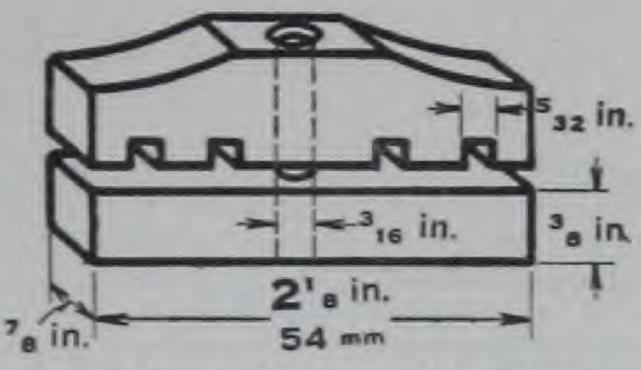


SONS COMPANY

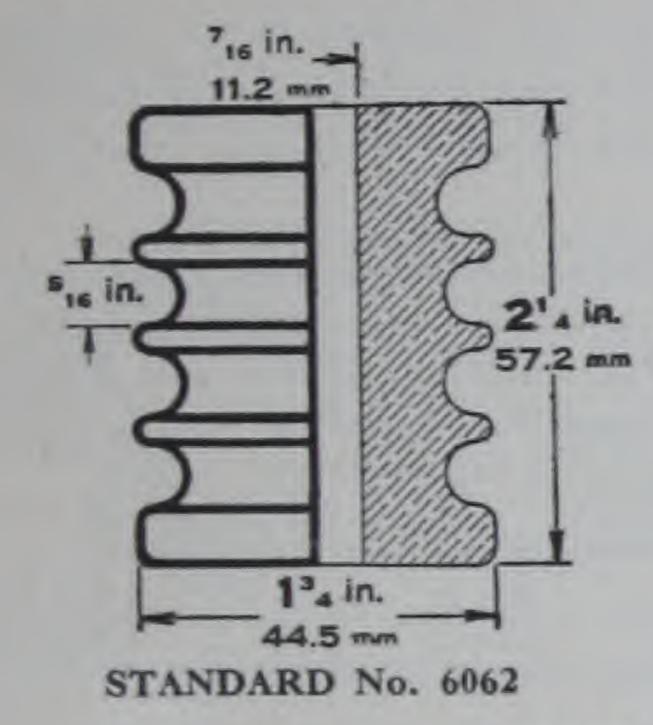


STANDARD No. 333 (TOP) STANDARD No. 3331/2 (BASE)

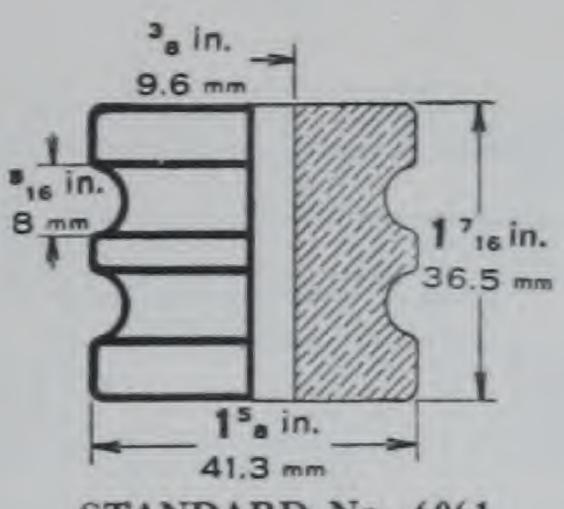
TELEPHONE



STANDARD No. 314 (TOP) STANDARD No. 315 (BASE)

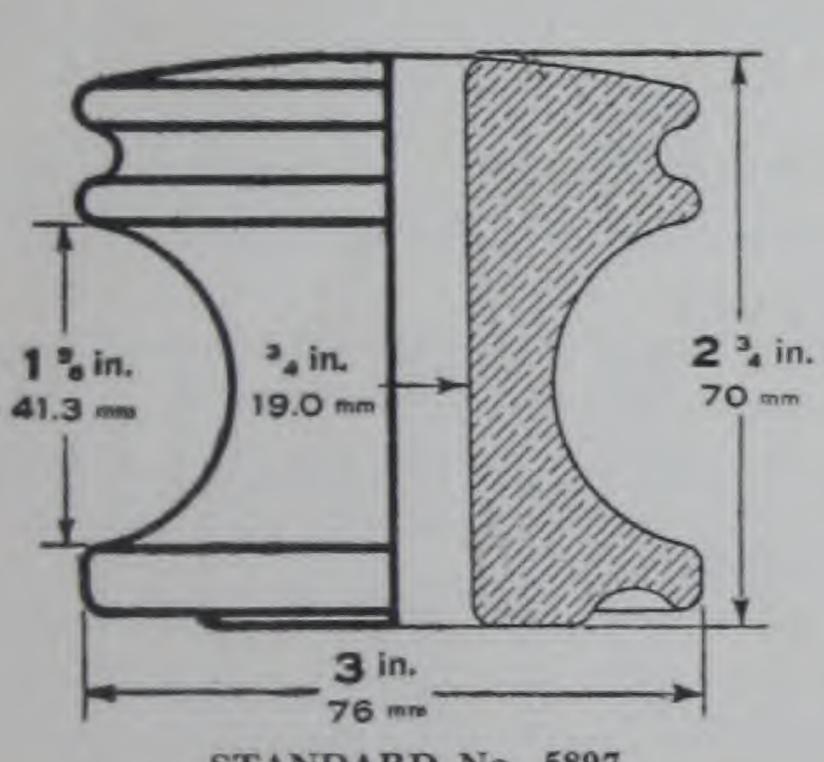


TELEPHONE KNOBS

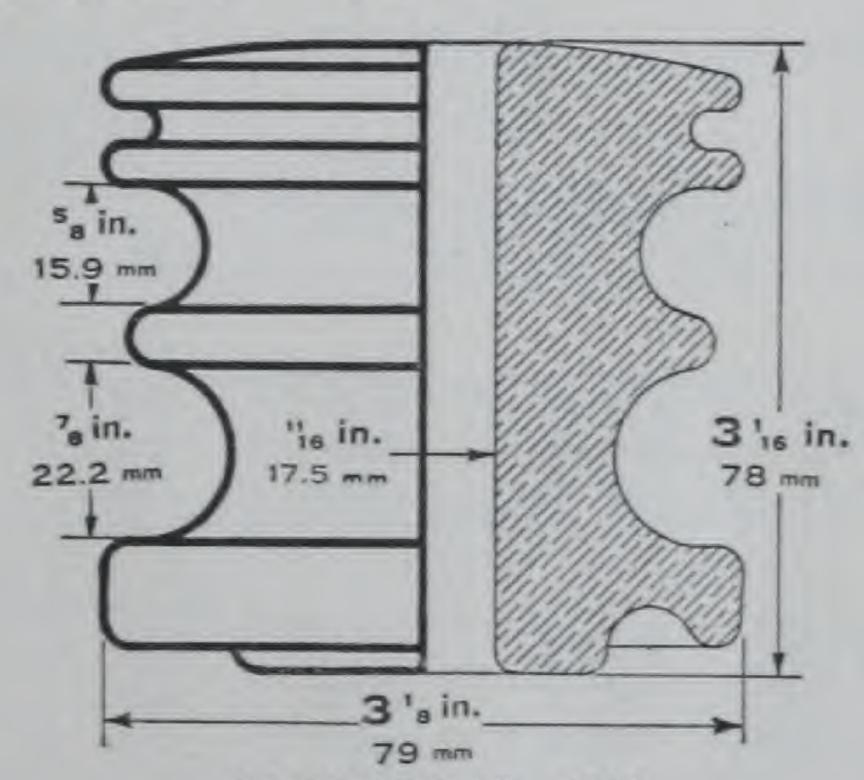


STANDARD No. 6061

SECONDARY RACK INSULATORS



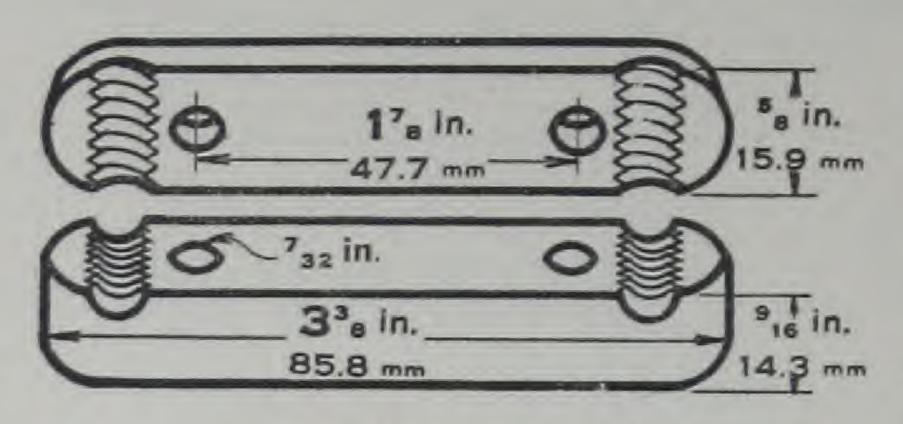
STANDARD No. 5897



STANDARD No. 6342

Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight Po		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
314	\$46.00	3000	310	141	350	360	163	ICOWO
315	44.00	3000	335	152	375	385	175	ICTFY
333 1/2	23.00	21500 22000	425 435	193 197	465 475	475 485	215 220	ICTGA ICTGI
6061	88.00	2000	415	188	455	465	211	ICLYG
	150.00	1000	335	152	375	385	175	ICOWK
5897	360.00	300	310	141	350	360	163	ICOWL
6342		290	340	154	380	390	177	ICOWM

TWO AND THREE WIRE CLEATS

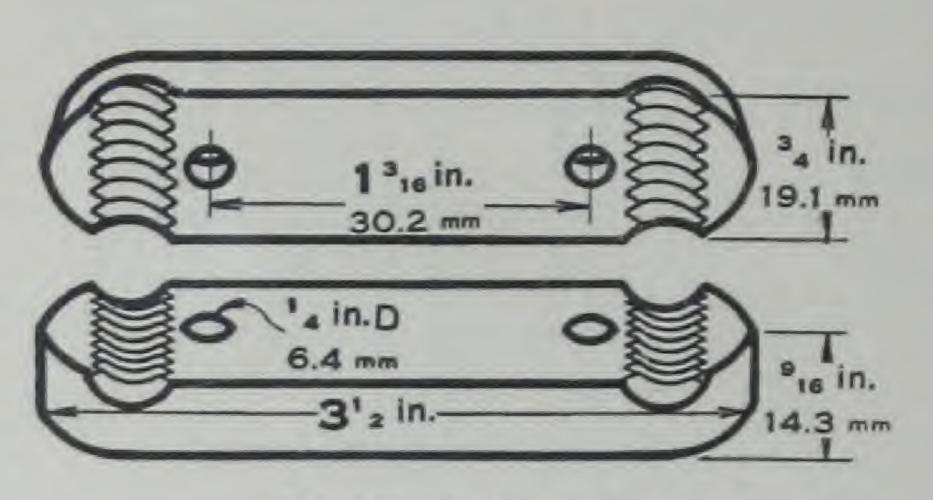


STANDARD No. 334

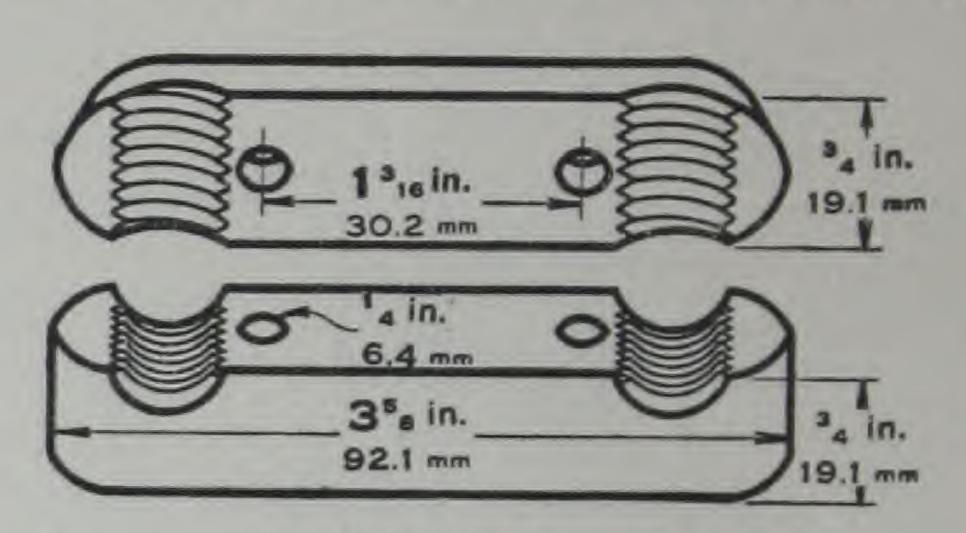
Three Wire Cleats can be furnished in all the designs listed on this page. Unless Three Wire Cleats are specified, orders will be filled with Two Wire Cleats as illustrated.

WIRE SIZES

Standard No. 334 receives No. 12 to No. 14 Standard No. 335 receives No. 8 to No. 10 Standard No. 350 receives No. 2 to No. 6



STANDARD No. 335



STANDARD No. 350

Standard	List Price	Number	Net Weight Per Barrel		Domestic Gross Weight	Export Gross Weight Per Barrel		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
			GLAZ	ED CLE	CATS			
334-G 335-G 350-G	\$90.00 100.00 150.00	1850 1500 1250	355 385 355	161 175 161	395 425 395	405 435 405	184 197 184	ICVUP ICVUS IDA FI
			UNGLA	AZED CI	EATS			
334-UG 335-UG 350-UG	\$52.00 60.00 88.00	1850 1500 1250	355 385 355	161 175 161	395 425 395	405 435 405	184 197 184	ICTGY ICVUL ICVUM

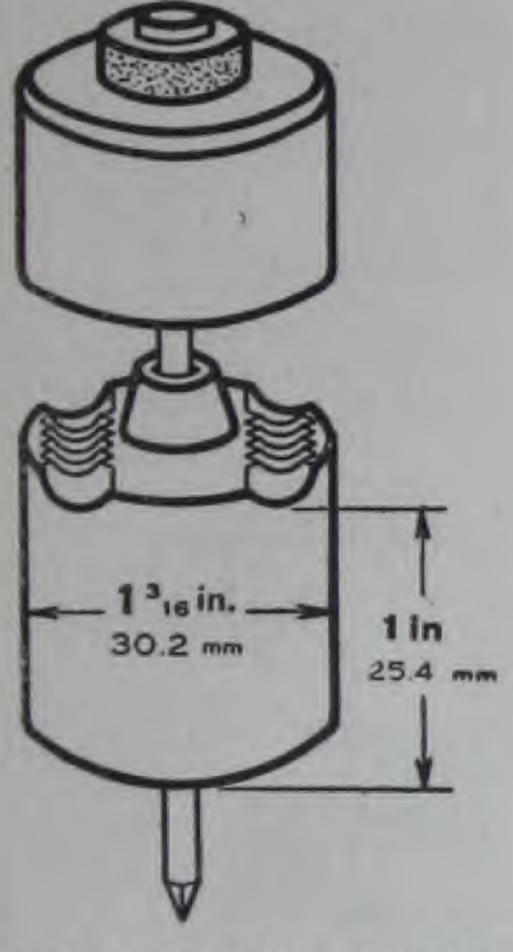
MILL CLEATS

The following designs are exactly the same as those listed above excepting that Cleats with a heavy one inch (1") base are furnished. These are extremely valuable for construction in damp places or where cleats are attached to metal supports as in Mills, Foundries, etc.

			GLAZ	ED CLE	ATS			
334½-G	\$135.00	1400	360	163	400	410	186	IDCEW
335½-G	150.00	1100	380	172	420	430	195	IDCID
350½-G	225.00	850	350	159	390	400	182	IDCIJ
			UNGLA	ZED CLI	EATS			
334½-UG	90.00	1400	360	163	400	410	186	IDA FY
335½-UG		1100	380	172	420	430	195	IDA FY
350½-UG		850	350	159	390	400	182	IDAGA

ASSEMBLED WIRING KNOBS

The Assembled Wiring Knob needs little or no introduction since it has been so favorably accepted as the Standard Economic Wire Supporting Fixture. Although quite an inexpensive article, it is most desirable for its time saving qualities, its compactness, efficiency and appearance.

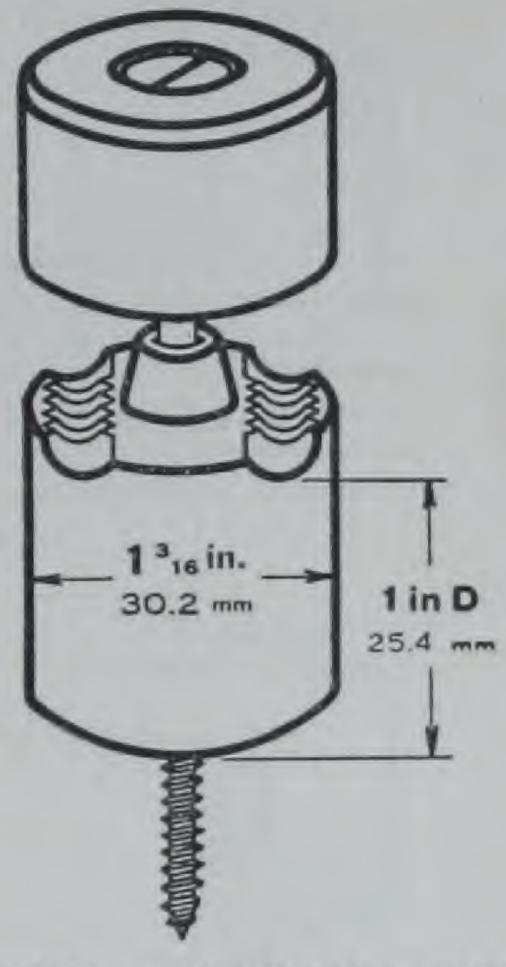


NAIL ASSEMBLED KNOB
Code Word IDCIK

List Price per 1,000 Assembled Knobs

Nail Assembled . . . \$70.00 Screw Assembled . . . 90.00

For 12 to 14 Wire



SCREW ASSEMBLED KNOB
Code Word—IDCIN

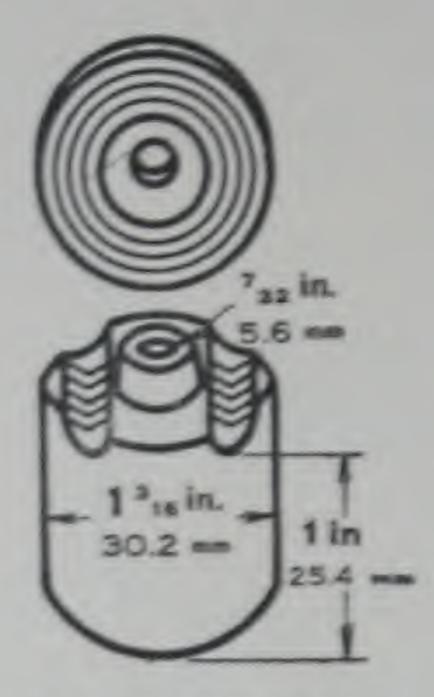
The Thomas Nail Assembled Knob is designed to stand the real test of service. It is fool-proof. Every member used in its make-up is of the best. It is so constructed as to withstand the accidental or mis-directed blow of the hammer or other sound object; when installed they will stay put; will clamp the wire and grip it tightly although the rounded edges prevent the porcelain from cutting into the cable and shearing it off. This Knob can be installed in any position with ease and the nail may be driven home regardless of the position of the rotary cap with respect to its base. The extremely heavy leather washer under the head of the nail permits of excessive pounding without fear of shattering the porcelain. The ten penny bright steel nails used are carefully selected from stout steel stock. A blow—and the nail bites in. No bending or breaking but ever sturdy, straight and true. Standard packing for both Nail and Screw Assembled Knobs is as follows:

PACKING

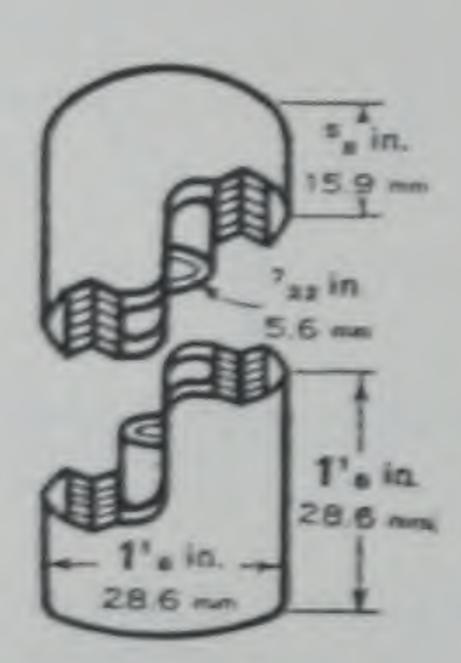
Standard	Number in _	Net We Pack		Domestic Gross Weight of	Export Gross Weight of Package		
Package	Package	Lbs.	Kgs.	Package Lbs.	Lbs.	Kgs.	
Barrel	2900	440	200	480	490	222	



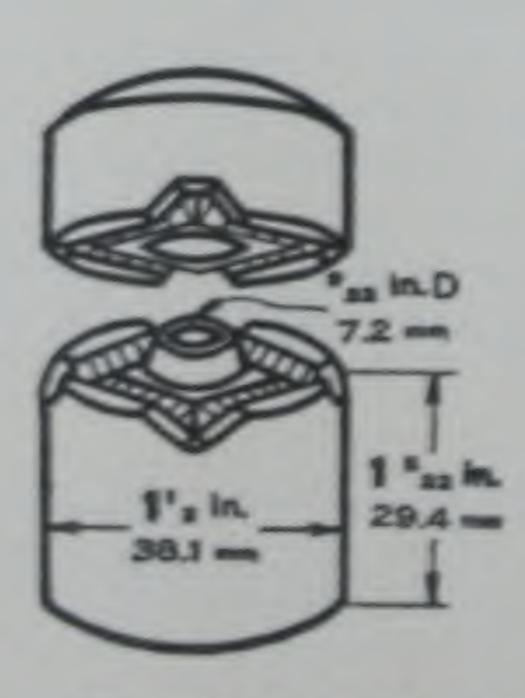
SPLIT WIRING KNOBS



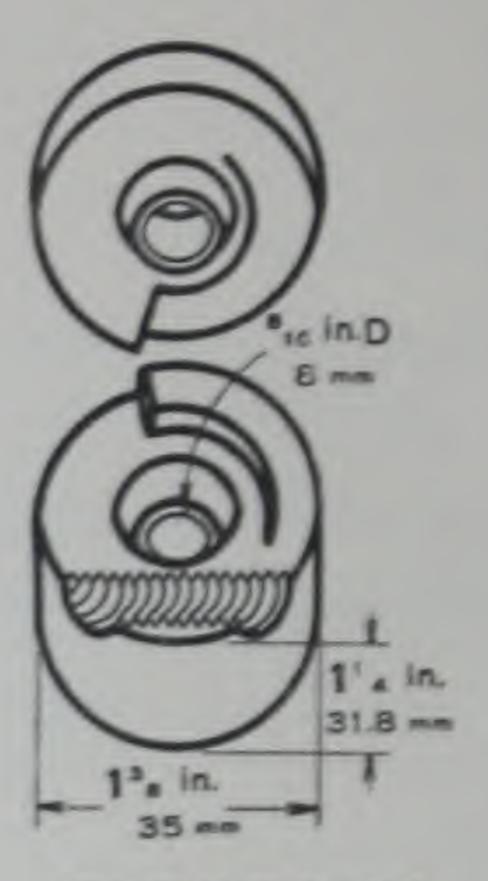
STANDARD No. 51/2 (New Code) For 12 to 14 Wire



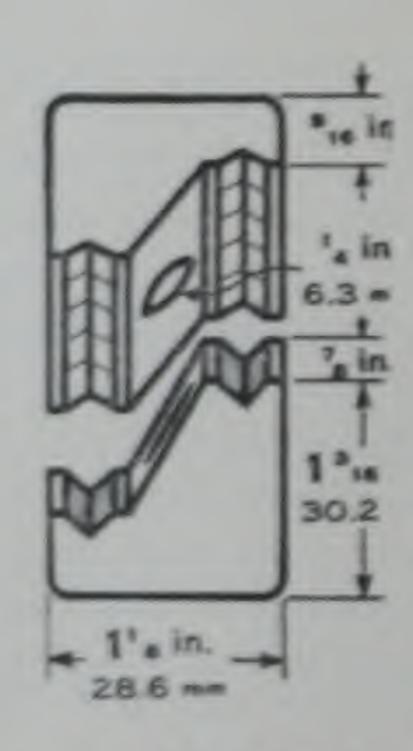
STANDARD No. 101 For 12 to 14 Wire



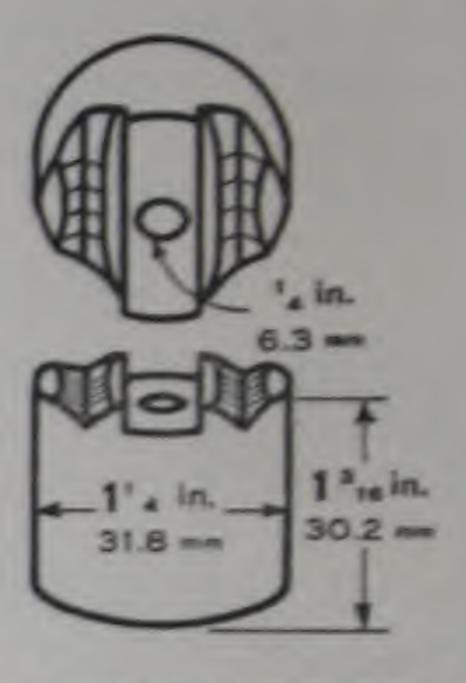
STANDARD No. 9419 For 10 to 12 Wire



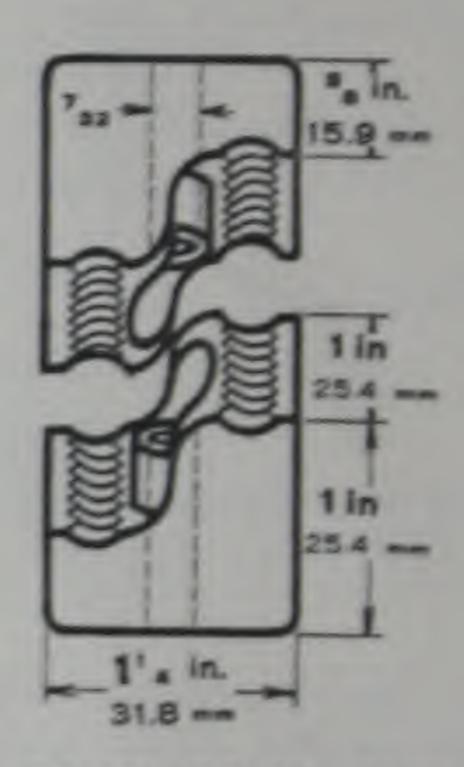
STANDARD No. 133 (Security) For 12 to 14 Wire



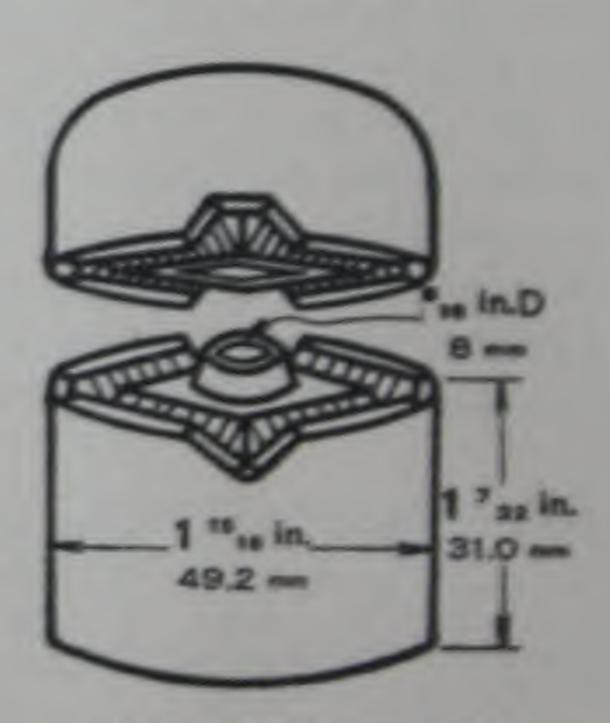
STANDARD MIDGET (Reversible) For 12 to 14 Wire



STANDARD DETROIT For 12 to 14 Wire

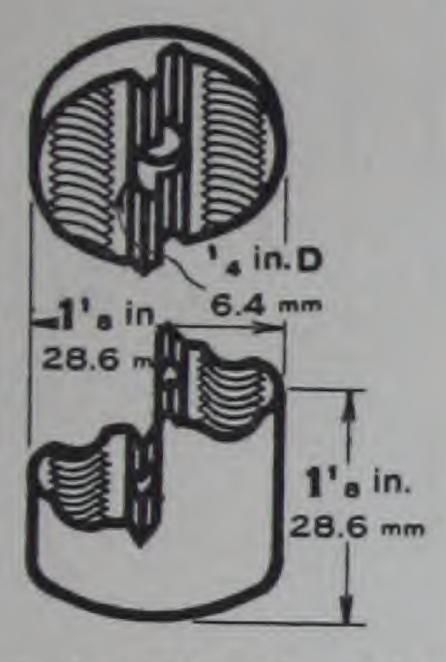


STANDARD No. 553/5 (Reversible) (san For 12 to 14 Wire

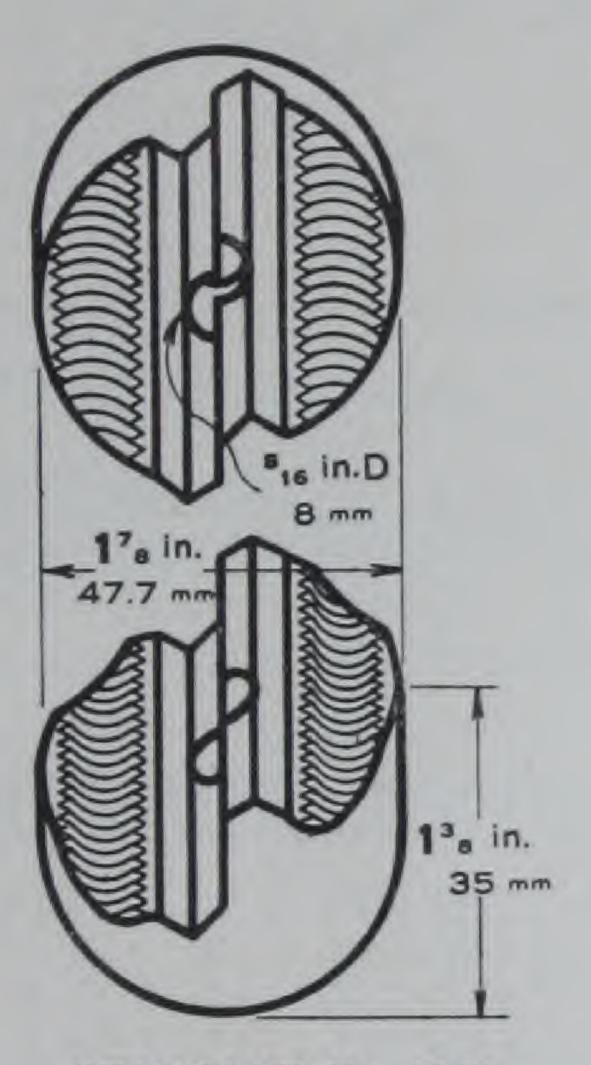


STANDARD No. 9420 For 4 to 6 Wire

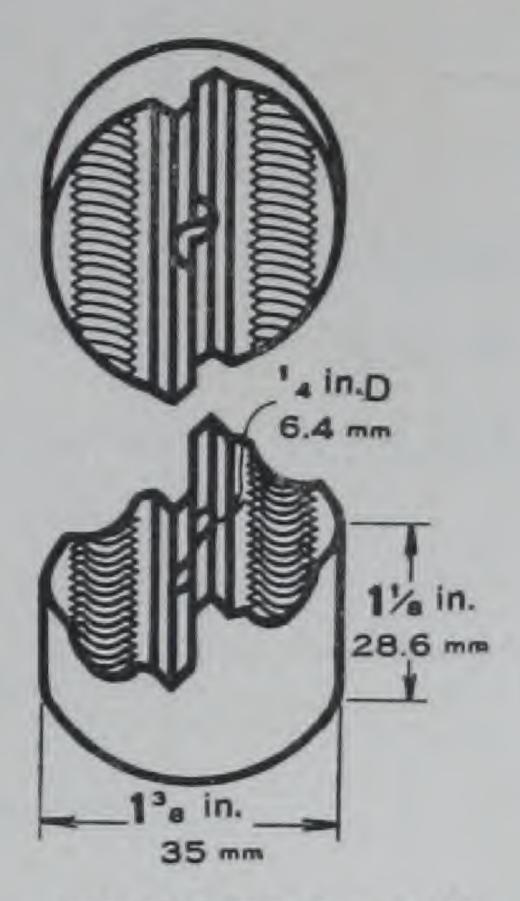
SPLIT WIRING KNOBS



STANDARD No. 5517 For 12 to 14 Wire



STANDARD No. 5147 For 4 to 6 Wire

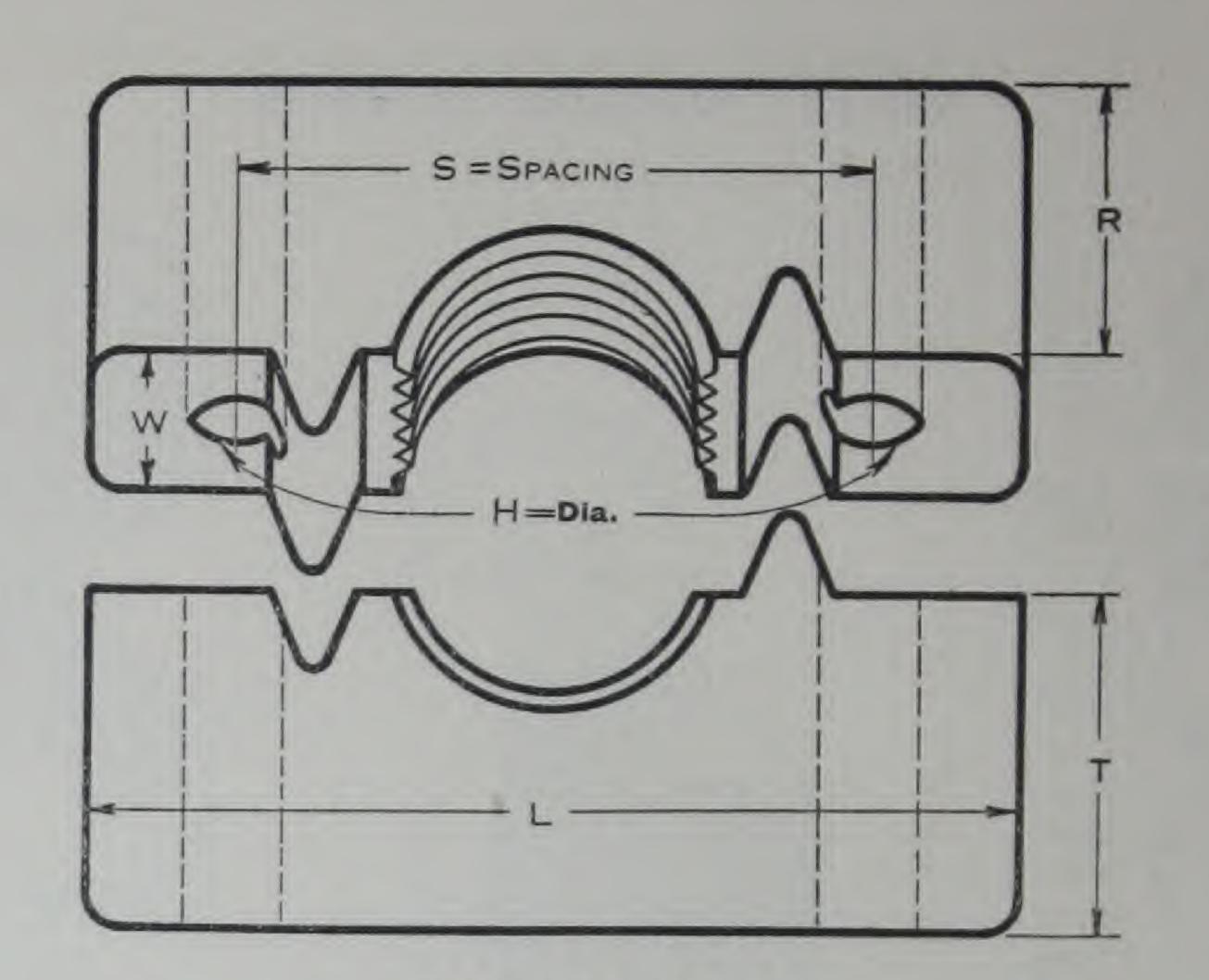


STANDARD No. 5135 For 8 to 10 Wire

Standard List Price		Number	Net Weight Per Barrel		Domestic Gross Weight	Export Gross Weight Per Barrel		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
51/2	\$52.00	3000	375	170	415	425	193	IDEFE
33	76.00	1500	395	179	435	445	202	IDEFO
551/2	75.00	2500	370	168	410	420	191	IDEFT
101	62.00	3000	410	186	450	460	209	IDEFU
5135	110.00	1500	370	168	410	420	191	IDFEC
5147	160.00	900	390	177	430	440	200	IDFE
5517	75.00	3750	425	193	465	475	215	ID FEG
9419	87.00	1500	375	170	415	425	193	IDFEL
9420	142.00	875	390	177	430	440	200	IDHIM
Detroit	62.00	3000	410	186	450	460	209	IDHIP
Midget	62.00	4000	460	209	500	510	231	IDHIS

THE R. THOMAS & SONS COMPANY

SINGLE WIRE CLEATS



B. & D.
STYLE

CLEATS No. 110-129

TABLE OF DIMENSIONS

N	imbers	L		S		W		Н		R		Т	
New	Old	in.	mm,	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm
			LIGI	HT CA	AP AN	ND LI	GHT	BASE					
110 111 112 113 114	1 -Reg. 1½-Reg. 2 -Reg. 2½-Reg. 3 -Reg.	15/6 21/4 21/4 21/6 31/8	49 57 57 68 79	13/8 11/2 13/8 15/8 17/8	30 38 35 41 48	13/6 13/6 13/6 11/4	21 24 27 30 32	1/4 5/6 5/6 5/6 3/8	6 8 8 8 10	11/8	15 17 21 24 29	1 1/8	15 17 21 24 29
			LIGH	IT CA	P AN	ID HE	EAVY	BASE					
115 116 117 118 119	1 -A 1½-A 2 -A 2½-A 3 -A	115/6 21/4 21/4 21/6 31/8	49 57 57 68 79	13/6 11/2 13/8 15/8 17/8	30 38 35 41 48	13/6 15/6 13/6 13/6 11/4	21 24 27 30 32	1/4 5/6 5/6 5/6 3/8	6 8 8 8 10	1 1/8 11/8 11/8	15 17 21 24 29	1 1/6 1 3/2 1 3/6 1 1/4 1 1/4	27 28 30 32 32
			HEAV	YY CA	P AN	ID HE	EAVY	BASE					
120 121 122 123 124 125 126 127 128 129	1 -B 1½-B 2 -B 2½-B 3½-B 3½-B 4 -B 4½-B 4½-B	15% 21/4 21/6 31/8 33/6 33/4 5 7/8	49 57 57 68 79 83 81 95 127 138	13/8 13/8 13/8 15/8 15/8 23/8 23/8 23/8 33/8 35/8	30 38 35 41 48 59 56 60 86 92	13/6 15/6 15/6 15/6 15/6 15/6 15/8 17/8 2	21 24 27 30 32 33 35 49 51	1/4/6/5/6/5/6/8/8/8/8/8/8/9/6 5/6/8/8/8/8/8/8/9/6/9/6	6 8 8 10 10 10 14 14	1 1/6 1 3/2 1 3/6 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/6 1 1/6	27 28 30 32 32 32 35 38 43 46	1 1/6 1 3/2 1 3/6 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4	27 28 30 32 32 32 35 38 43 46
125 126 127 128 129	3½-B 3½-B 4 -B 4¼-B 4½-B	5 3 3/4	81 95 127 138	23/8 23/8 33/8 35/8	59 56 60 86 92	1 3/8 1 3/8 1 7/8	33 33 35 49 51	3/8 3/8 9/6 9/6	10 10 14 14		35 38 43	13%	The part of the



SINGLE WIRE CLEATS-B. & D. STYLE

PRICE LIST AND WIRE TABLE

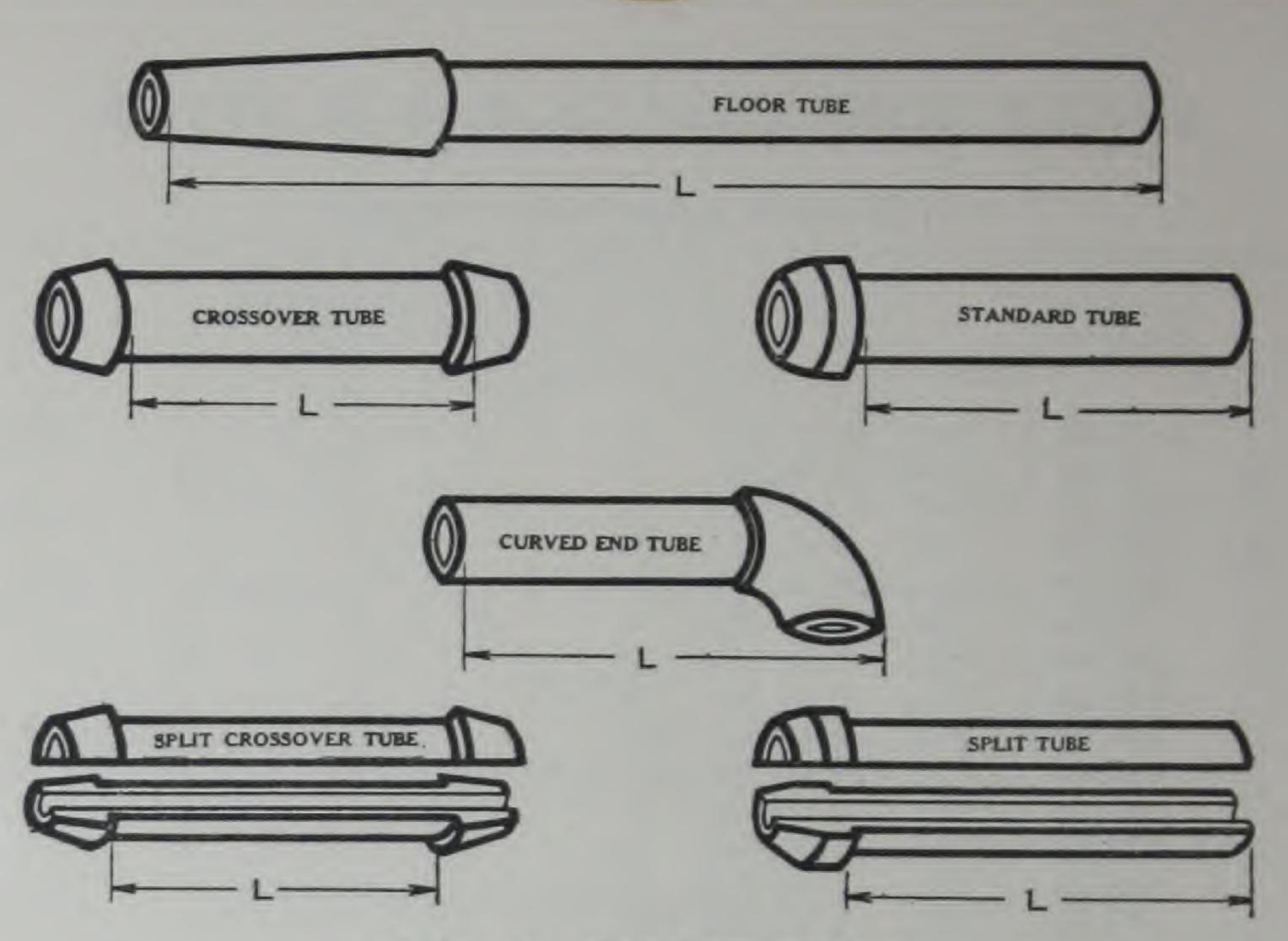
Catalog Numbers	List Price per 1000	Size of Wire Received B. & S. Gauge
110.	\$ 74.00	No. 14 to No. 6.
111.	96.00	No. 6 to No. 2.
112.	110.00	No. 2 to No. 0.
113.	140.00	No. 0 to No. 000.
114.	180.00	No. 000 to 200,000 C. M.
115.	80.00	No. 14 to No. 6.
116.	108.00	No. 6 to No. 2.
117.	125.00	No. 2 to No. 0.
118.	156.00	No. 0 to No. 000.
119.	196.00	No. 000 to 200,000 C. M.
120.	86.00	No. 14 to No. 6.
121.	120.00	No. 6 to No. 2.
122.	140.00	No. 2 to No. 0.
123.	172.00	No. 0 to No. 000.
124.	212.00	No. 000 to 200,000 C. M.
125.	260.00	No. 10 Duplex Parellel Conduit Cable \square x \gamma in. (16x22 mm.)
126.	260.00	200,000 to 500,000 C. M.
127.	330.00	500,000 to 1,000,000 C. M.
128.	500.00	800,000 to 1,250,000 C. M.
129.	620.00	1,000,000 to 2,000,000 C. M.

STANDARD PACKING

Catalog	Number	Net W per B	veight Jarrel	Domestic Gross Weight	Export Gro		Code
Numbers	per Barrel	Lbs.	Kgs.	per Barrel, Lbs.	Lbs.	Kgs.	Word
110.	2500	380	172	420	430	195	IDIPE
111.	1800	340	154	380	390	177	IDKIC
112.	1350	390	177	430	440	200	IDMIZ
113.	1000	480	218	520	530	240	IDOGO
114.	650	460	209	500	510	231	IDOHI
115.	1800	370	168	410	420	191	IDKET
116.	1400	360	163	400	410	186	IDKIF
117.	1200	440	200	480	490	222	IDMOB
118.	800	460	209	500	510	231	IDOGU
119.	600	440	200	480	490	222	IDPIJ
120.	1200	320	145	360	370	168	IDKEV
121.	1100	360	163	400	410	186	IDMIX
122.	900	400	181	440	450	204	IDMOC
123.	650	430	195	470	480	172	IDOHA
124.	550	420	191	460	470	168	IDPIK
125.	550	440	200	480	490	222	IDSGI
126.	500	460	209	500	510	231	IDSGY
127.	350	380	172	420	430	195	IDSHE
128.	175	410	186	450	460	209	IDSHO
129.	150	410	186	450	460	209	IDUAV



SONS COMPANY



TUBE DIAMETERS

DIAMETERS	TUBE SIZE as referred to in List													
	16	3/8	1/2	5/8	3/4	1	11/4	11/2	13/4	2	21/4	23/2	23/4	3
Outside (in.) Outside (mm.) Inside (in.) Inside (mm.)	14.3 5 16 7.9	17.5 3/8 9.5	20.6 1/2 12.7	23.8 5/8 15.9	1 3 30.2 34 19.1	1 16 36.5 1 25.4	1 1 1 4 46.1 1 1/4 31.7	2 3 55.6 11/2 38.1	2 % 65.1 13/4 44.5	2 18 74.6 2 50.8	3 16 84.1 21/4 57.1	3 He 93.7 21/2 63.5	4 1/4 108 28/4 69.8	4½ 114 3 76.2

TUBE LENGTHS

Dimensions "L" on illustrations represent the length of Tubes as regularly referred to in our lists.

STANDARD UNGLAZED TUBES LIST PRICE (DOLLARS) PER \$1000

L							TI	JBE SI	IZE					
	16	3/8	1/2	5/8	3/4	1	11/4	11/2	13/4	2	21/4	21/2	23/4	3
1 1 1 1 2 2 1 2 1 2 1 2 1 4 1 6 1 8 2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	\$ 16 \$ 17 18 19 21 23 30 39 50 90 167 244 321 398 475 552 629	20 21 22 24 27 30 40 50 60 105 186 267 348 429 510 591 672	26 27 28 30 33 37 48 60 72 130 215 300 385 470 555 640 725	\$ 40 46 52 58 65 80 95 110 140 250 340 430 520 610 700 790	\$ 60 70 80 90 100 116 132 148 180 290 390 492 594 696 798 900	\$ 100 112 125 138 150 168 186 204 240 375 500 625 750 875 1000 1125	\$ 150 170 190 210 240 272 306 376 450 700 870 1040 1210 1380 1550	230 255 280 320 360 405 490 580 1025 1235	\$ 310 340 370 445 520 600 750 900 1600 1900 2200 2500 2800	460 500 630 760 900 1160 1430 1700 2800 3200 3600 4000	\$ 590 835 1030 1225 1615 2005 2400 4000 4520 5040 5560	800 1090 1380 1670 2250 2830 3420 5600 6240 6880 7520	1000 1450 1900 2350 3250 4150 5050 5950	\$ 115 125 175 225 275 375 475 575 680 1020 1115 1210 1305

For solid Floor Tube prices multiply above List by 3. For split Floor Tube prices multiply above List by 6.

For split Standard Tube prices multiply above List by 10. For solid Cross-Over Tube prices multiply above List by 6.

For split Cross-Over Tube prices multiply above List by 12.

For Curved and Curved End Tube Prices multiply above List by 3.

For Headless Tube prices (above 8" long) multiply above List by 4.

For Headless Tube prices (8" or under in length) use Regular List.

For Glazed Tube prices add 50% to Net Prices.

THE R. THOMAS & SONS COMPANY

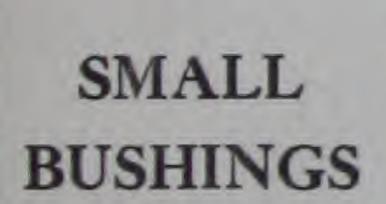
TUBES—Continued NUMBER OF STANDARD TUBES PACKED PER BARREL

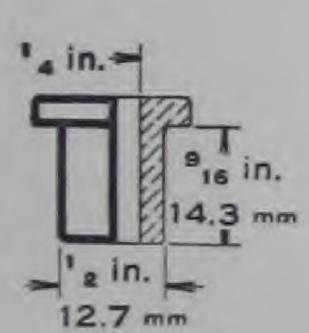
*					TUBE SI	ZE			
L	16	3/8	1/2	5/8	3/4	1	11/4	11/2	13/4
1 1 1 1 1 2 2 1 2 1 2 1 2 1 4 1 2 1 4 1 4	15000 11000 9000 6500 5500 4500 2500 2350 2000 1850 1500 1100	12500 7500 6000 5000 3750 3000 2200 1700 1600 1400 1300 1000 850	10000 6000 4200 3400 2800 2000 1600 1250 1050 1000 900 750 600	4500 3200 2500 2000 1500 1200 1000 1000 850 800 650 500	3700 2500 1800 1500 1100 900 800 650 675 550 500 300	2000 1500 1100 900 750 600 500 400 400 300 275 225	725 625 525 425 300 285 275 225 180 150 120	450 400 350 350 250 240 225 190 150 125 100	280 250 250 225 200 200 175 150 140 120 90
16	1000 900	650 500	500 350	450 200	275 190	175 100	90 75	75 60	60 50
18 20	750	500	300	200	150	100	75	60	50
22	600	500	300	200	150	100	75	60	50
24	600	450	300	200	150	100	75	60	50

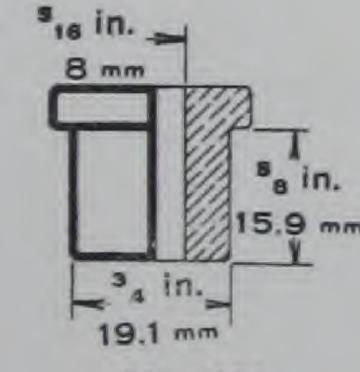
GROSS WEIGHT PER BARREL STANDARD TUBES

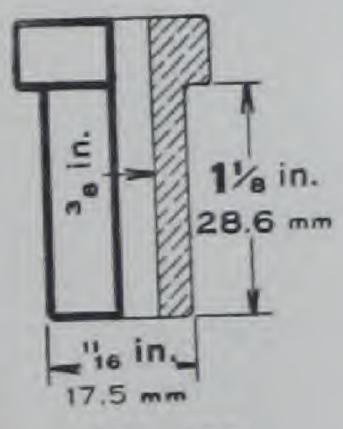
T					TUBE S	IZE			
	5 16	3/8	1/2	5/8	3/4	1	11/4	132	134
1 1 1 1 1 2 2 1 2 1 2 1 4 1 6 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8	360 370 350 310 280 240 235 285 355 350 335 310 315 320	370 380 300 355 310 315 265 285 285 345 355 315 395 300 305	370 375 345 315 315 235 245 245 250 390 360 345 320 335 335 300	380 375 355 325 265 350 340 240 350 355 340 335 275 285	330 320 310 295 280 255 265 235 370 385 335 305 385 305 385 240	350 360 345 330 315 240 265 235 395 400 330 315 315 315 250	420 350 320 310 230 250 260 275 290 265 270 245 235	420 350 325 315 225 235 245 290 280 280 285 295 250 225	400 380 370 240 255 270 295 255 280 290 250 290
20	315	320	325	300	255	285	260	255	310
22 24	325 340	330 330	320 305	300 325	305 335	315 380	295 310	290 305	335 360

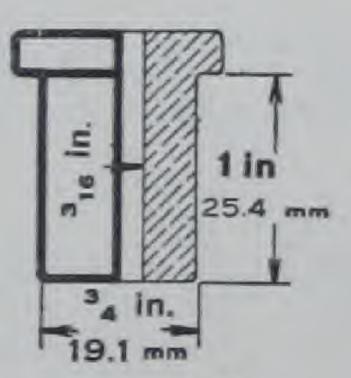
All Tubes larger than 1% x 24 inches are packed 50 Tubes per Barrel.











T. T	400
00	200
No.	TUU

No. 401

No. 402

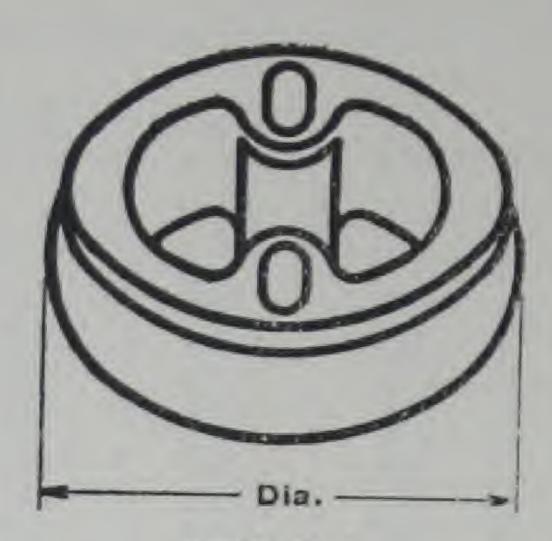
No. 403

Standard	List Price	Number	Net Weight				Export Gross Weight		
Number	per 1000	in Barrel	per Barrel				per Barrel		
1 umber	per 1000	III Dallel	Lbs.	Kgs.	Lbs.	Lbs.	Kgs.		
400.	50.00	15,000	210	95	250	260	118	IDHIY	
401.	57.00	6,000	160	73	200	210	95	IDHOD	
402.	80.00	5,000	185	84	225	235	107	IDIOW	
403.	70.00	4,000	235	107	275	285	129	IDIOY	

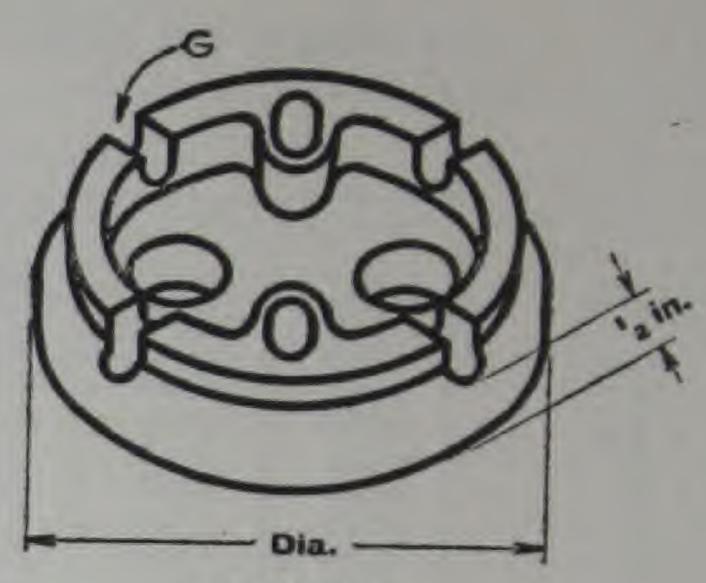


SONS COMPANY

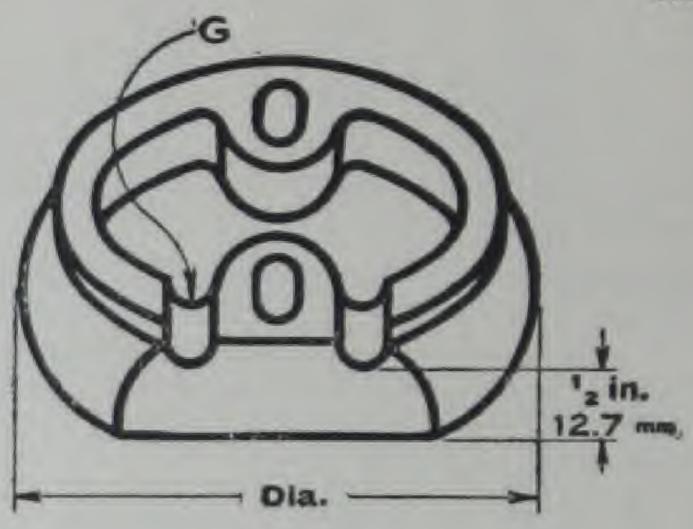
SUB-SWITCH BASES



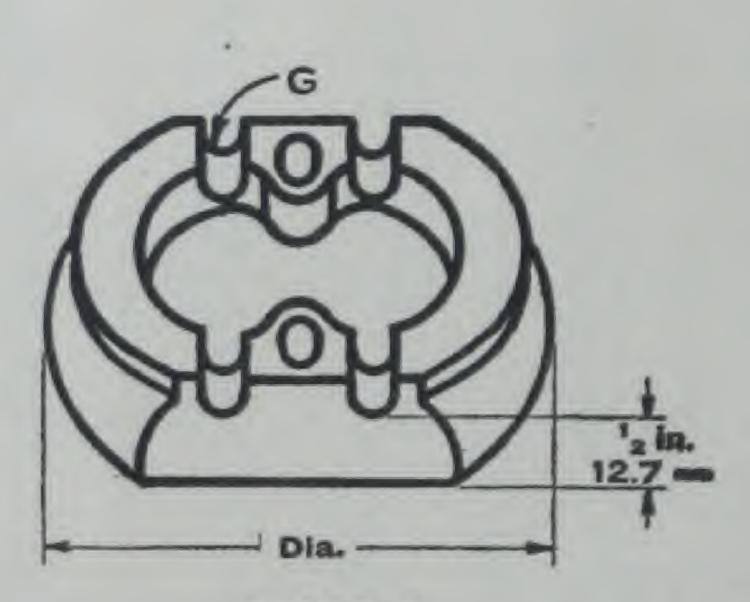
STYLE A Concealed type



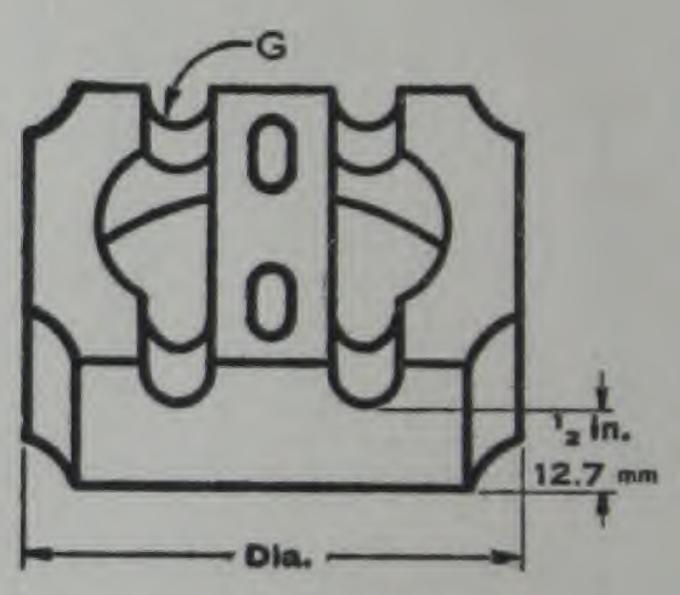
STYLE B Cleat and Concealed type



STYLE C End Moulding type



STYLE D Line Moulding type

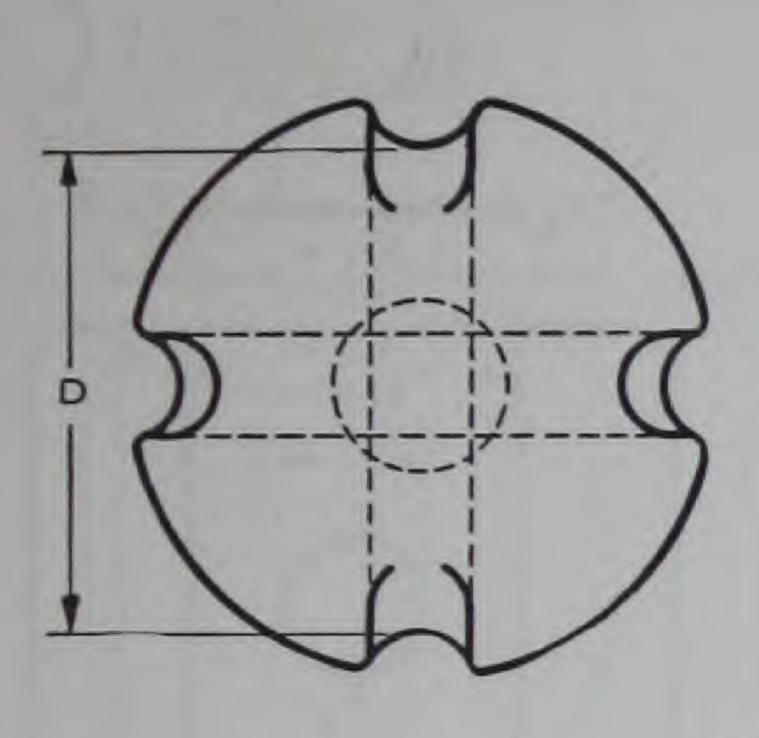


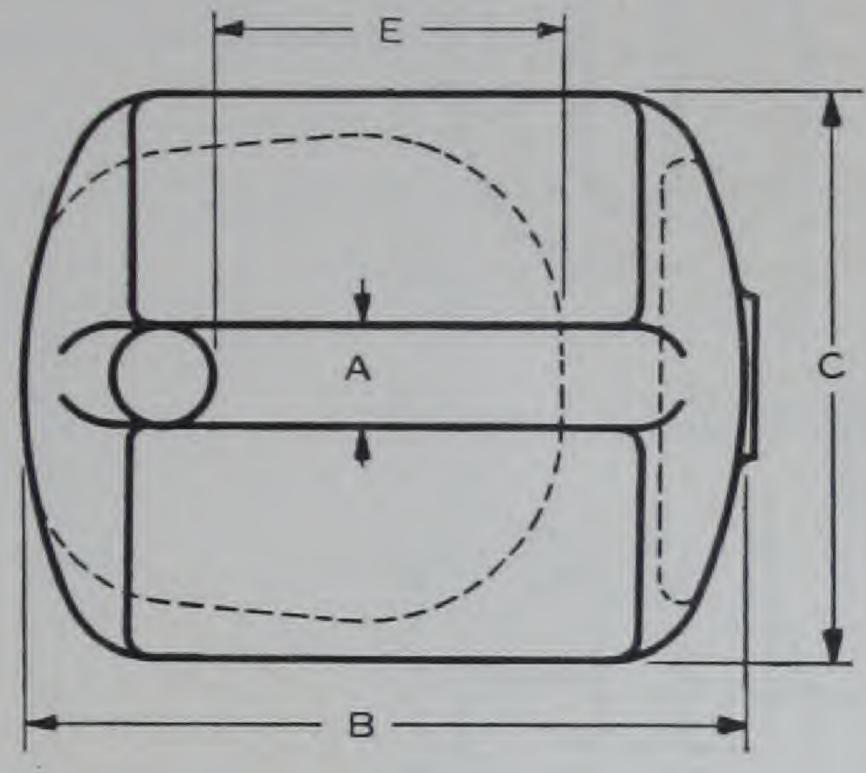
Square Combination type

Style Num-	Ca- pacity	List Price	0	neter f ise	Gro Dian	ove	Number	Net W Bar		Domestic Gross Weight per	Weigh	Gross at per rrel	Code
ber	in Am - peres	per 1000	in.	mm.	in.	mm.	Barrel	Lbs.	Kgs.	Barrel, Lbs.	Lbs.	Kgs.	Code Word
A- 5 A-10 B- 5 B-10 C- 5 C-10 D- 10 E-10	3-5 5-10 3-5 5-10 3-5 5-10 5-10	110.00 145.00 110.00 145.00 145.00 145.00 145.00 145.00	23/8 3 21/2 3 21/6 3 21/6	60 76 64 76 65 76 65 76 62	······································	6.4 7.9 6.4 7.9 6.4 7.9 9.5	1800 1100 1800 1100 1800 1100 1200	370 340 400 380 320 360 340 330 300	168 154 181 172 145 163 154 150 136	410 380 440 420 360 400 380 370 340	420 390 450 430 370 410 390 380 350	191 177 204 195 168 186 177 172 159	IDUBA IDUBA IDUBA IDUBA IDUWA IDUXE IDUXE IDUXE IDUXE IDUYE



SONS COMPANY





CATALOG Nos. 500-6

Catalog Number	A	В	С	D	E	Ultimate Crushing Strength	Code Word
500	3/8 in.	2½ in.	1% in.	1 in.	5/8 in.	4,000 lbs.	GADEW
	9.5 mm.	54.0 mm.	39.7 mm.	25.4 mm.	15.9 nim.	1,815 kgs.	
502	½ in.	3½ in.	2½ in.		11/8 in.	11,000 lbs.	GADFI
	12.7 mm.	88.9 mm.	63.5 mm.	50.8 mm.	28.6 mm.	4,990 kgs.	
504	½ in.	35/8 in.	27/8 in.	23/8 in.	13/4 in.	19,000 lbs.	GADFY
	12.7 mm.	92.1 mm.	73.1 mm.	60.3 mm.	44.5 mm.	8,619 kgs.	
506	3/4 in.	5½ in.	33/8 in.	2% in.	23/4 in.	45,000 lbs.	GADGA
	19.1 mm.	140 mm.	85.8 mm.	65.1 mm.	69.9 mm.	20,412 kgs.	

DOMESTIC

Catalog List Price Number Per 1000		Flash-Ov	er Voltage	Net Weight	Gross Weight Per Barrel	Number in
Number	rei 1000	Dry	Wet	Per Barrel	Per Barrel	Barrel
500	210.00	16,000	9,000	374 lbs.	425 lbs.	1700
502 504	420.00 525.00	23,000 25,000	14,000	440 lbs. 390 lbs.	480 lbs.	400 250
506	1000.00	31,000	20,000	340 lbs.	385 lbs.	150

For Export Shipments the following Packing applies:

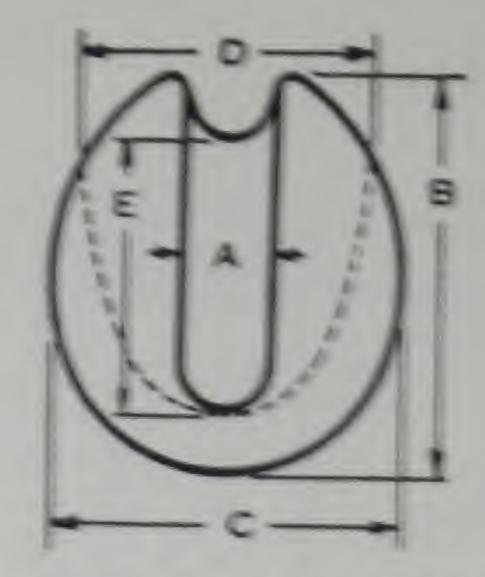
Cat. No. 500 packed 1500 per Barrel. Net Weight 330 lbs. (150 kgs.) Gross Weight 390 lbs. (177 kgs.) Cat. No. 502 packed 350 per Barrel. Net Weight 385 lbs. (175 kgs.) Gross Weight 430 lbs. (195 kgs.)

Cat. No. 504 packed 250 per Barrel. Net Weight 390 lbs. (177 kgs.) Gross Weight 440 lbs. (200 kgs.) Cat. No. 506 packed 150 per Barrel. Net Weight 340 lbs. (154 kgs.) Gross Weight 385 lbs. (175 kgs.)

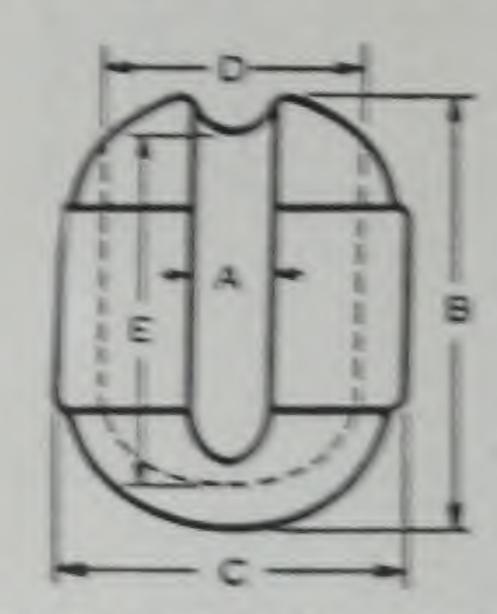
THE R. THOMAS & WEST



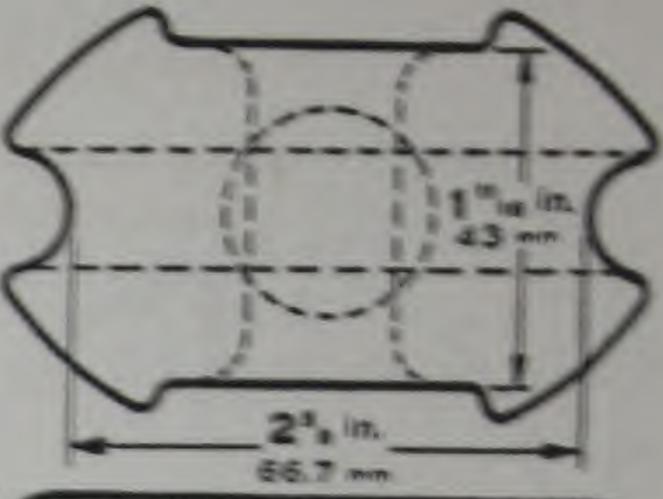
SONS COMPANY

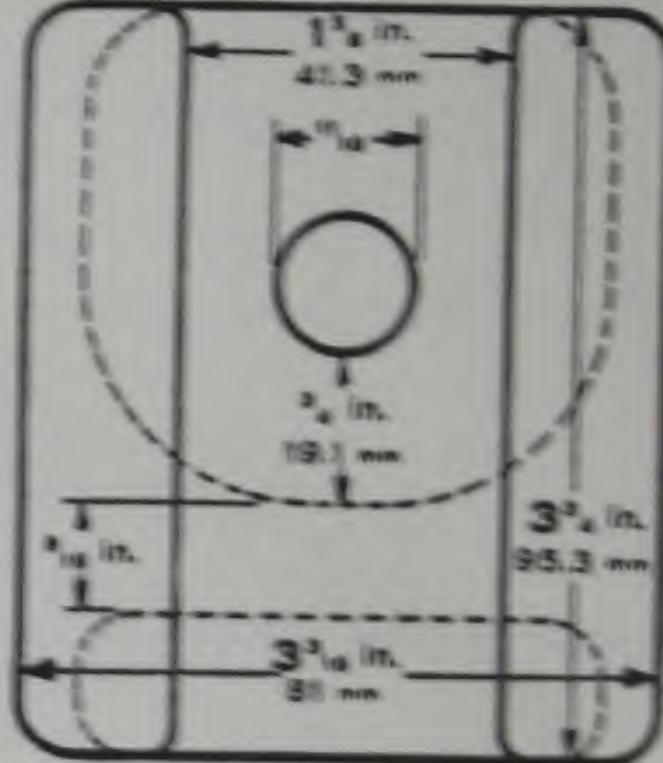


CATALOG Nos. 361-2



CATALOG Nos. 365-6





CATALOG No. 508

Catalog Number	A	3	c	D	3	Ulhimate Crushing Strength	Code
361	17.5 mm.	3 im. 76.2 mm.	29% im. 66.7 mm.	23% im. 54 mm.	2 im. 50.8 mm.	19,000 lbs. 8,619 kgs.	
36.2	22.2 mm.	4% in.	314 in.	235 im.		25,000 lbs. 11,340 kgs.	
365	12.7 mm.	23/2 im. 63.5 mm.	23g im. 55.6 mm.	1½ im. 38.1 mm.	2 in.	6,500 lbs. 2,948 kgs.	GAANG
366	15.9 mm.	3% in.	29/4 100.	17/9 im. 47.6 mm.	266 im.	15,000 lbs. 6,805 kgs.	GAANO
508						19,000 lbs. 8,619 kgs.	GAGAW

DOMESTIC

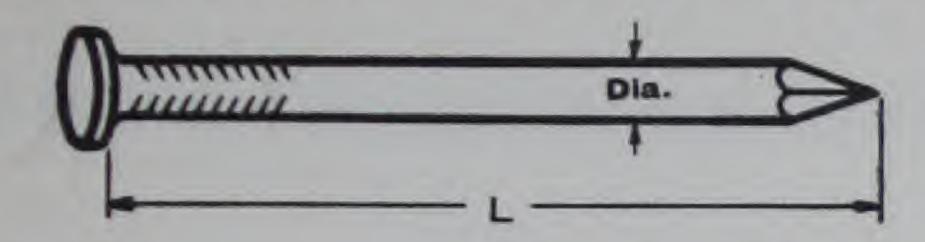
Catalog List Price Number Per 1000		Flash-Ov	er Voltage	Net Weight	Gross Weight	Number in
- NAME OF STREET	A CO. AMMEN	Dry	Witte	Per Burnel	Per Burnel	Busmell
361 362 365 366 508	391.00 708.00 239.00 368.00 535.00	14,000 17,000 12,000 15,000	7,000 10,000 5,000 7,000 8,000	350 lbs. 345 lbs. 395 lbs. 385 lbs. 435 lbs.	390 lbs. 395 lbs. 440 lbs. 420 lbs. 495 lbs.	580 182 625 350

For Export Shipments the following Paciting applies:

Cat. No. 36t packed 500 per Barnel.	Net Weight 380 lbs. (180 bes.)	Corner Windship 2000 Ber 1977 Service
Cat. No. 362 packed 182 per Barrel.	When Williams was the common to	Company of the Compan
Can. No. 365 packed 625 per Burnel.	None Williams and the comment	THE RESERVE TO STATE OF THE PARTY OF THE PAR
Chi. No. March 1. In march 1.	Marie William States His Court to	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED I
Cat. No. 408 muchael 250 nuc Brend	Nex Weight 385 lbs. (175 kgs.)	Gross Weight 420 lbs. (1981 keps.)
Cat., No. 508 packed 250 per Barrel.	THEO MICHELL SAME HOSE (DON'T ESTER)	Cottons Williams 435 Blue / 1927 from h

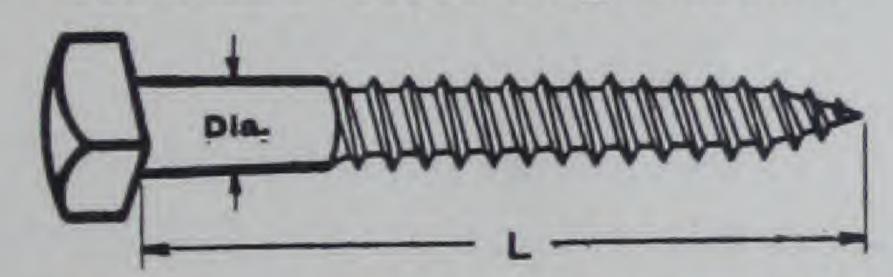
THE R. THOMAS & SONS COMPANY

Standard Steel Wire Nail Data



Nail Size	Length (inches)	Wire Gauge	Diameter (inches)	Number in Lb.
2 d.	1	15	.072	876
3 d.	11/4	14	.08	568
4 d.	11/2	121/2	.0985	316
5 d.	13/4	121/2	.0985	271
6 d.	2	111/2	.113	181
7 d.	21/4	111/2	.113	161
8 d.	21/2	101/4	.135	106
9 d.	23/4	101/4	.135	96
10 d.	3	9	.1483	69
12 d.	31/4	9	.1483	64
16 d.	31/2	8	.1620	49
20 d.	4	6	.192	31
30 d.	41/2	5	.207	24
40 d.	5	4	.2253	18
50 d.	51/2	3	.2437	16
60 d.	6	2	.2625	11

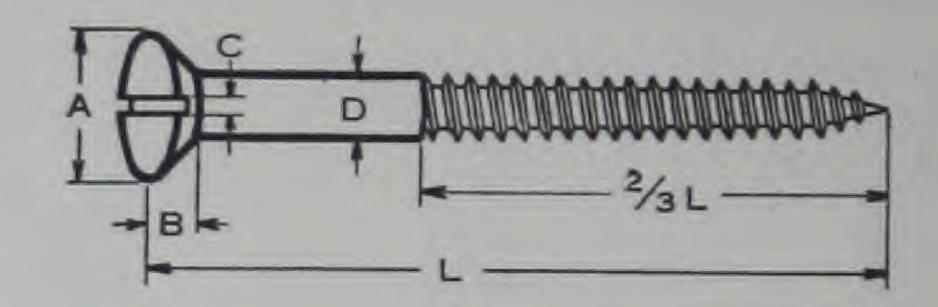
Standard Steel Lag Screws



INDICATING SIZES AND WEIGHTS PER 100 (lbs.)

Length under Head			S	CREW	SIZES (liameter	of stock 1	under hea	d) inches			
inches	3/4	18	3/8	16	3/2	76	5/8	3/4	7/8	1	11/8	11/4
11/2	2	3	5	9	13							
2	3	4	7	11	15	22	26					
21/2	4	5	8	12	17	25	29	43				
3	5	6	9	14	19	27	33	46	71			
31/2	6	7	11	16	21	30	37	51	78	112		
4	7	8	12	18	23	33	40	57	85	121		
41/2	8	9	13	19	26	35	44	62	92	130		
5	9	10	14	21	28	38	48	68	98	141	184	
51/2	10	11	16	23	31	40	52	74	105	153	196	
6	11	12	17	25	33	43	55	80	112	164	207	250
61/2			18	34	36	47	58	85	118	174	219	265
7			20	36	38	50	63	92	125	185	230	279
71/2			21	40	41	53	66	98	131	195	242	291
8			22	42	44	56	69	104	138	205	254	306
9			24	44	48	63	76	115	156	225	267	320
0				47	53	70	83	126	173	245	285	334
1				49	57	77	90	138	191	265	300	350
2				52	62	83	97	149	208	285	315	368

STANDARD WOOD SCREW DATA



FORMULA

D=0.01325N + 0.056

D-0.056

0.01325

D=Diameter of Screw

N=Screw Number

TABLE OF DIMENSIONS

Screw A B C in. in. in.			.C	D	No. Thread					S	tano	lard	l ler	igth	s ma	anu	fact	ureo	d (ii	nch	es)				
	in.	ın.	per inch	1/4	3/8	3/2	5/8	3/4	7/8	1	11	11	13	2	21	1 21 23 3 31	4	41	5	1					
0.				.0578	30 28	**																			Ī
2.	.1631	.0454	.030	.0841	26	66	66	44	1000		46												1 9		
3.	.1894	.0530	.032	.0973	24	4.6		46	44							- 1									
4.	.2158	.0605	.034	.1105	22	44	44	66	44	4.4	66	64		**					1					1 3	1
5.	.2421	.0681	.036	.1236	20			66	66	66	44	44	44	66											
0.	.2684	.0757	.039	.1368	18		**	**	1000	1	44		66		88	44				1					
9	.2947	.0832	.041	.1500	17		44	**	4.6	44	66	100	44	1000		66									1
8.	.3474	.0908	.043	.1631	15		66	44	44					44			_	66							
10.	.3737	.1059	.048	.1763	14		00	66			_	_		44				**	-1		22				
11.	.4000	.1134	.050	.2226	13 12.5														10						
12.	65333	.1210	.052	.2158	12						_			44	_	_			44						
13.	.4427	.1286	.055	.2289	11		-								_	_		- 1							
14.	.4790	.1362	.057	.2421	10	- 1			44			- 1	_	1		_		46		1000	44	11			
15.		.1437	.059	.2552	9.5				1	66	46			24	44	44	44	**	44	44					
16.	.5316		.061	.2684	9	- 1				44	22	44	44	44		44	44	44	44	46	44	66	44		
17.		.1589	.064	.2815	8.5					- 1		2.6	44			_		44	_	_					
18.	.5842	0 00 0 0	.066	.2947	8					- 1	- 1	66		_			_	_	_	_	44		44		
20. 22.		.1816	.070	.3210	7.5							**				_			_	_		_	66		4.6
24.	.6895	.1967	.075	.3474	7.5							- 1	16		_	_			_	_		_	-		12
26.		.1967	.079	.3737	6.5								**	66	66	**	**		_		**		-		6.6
28.		.2118	.088	.4263	6.5														4.4	**	44		**		
30.	.8474		.093	.4546	6	- 1						- 1				1							1	**	_

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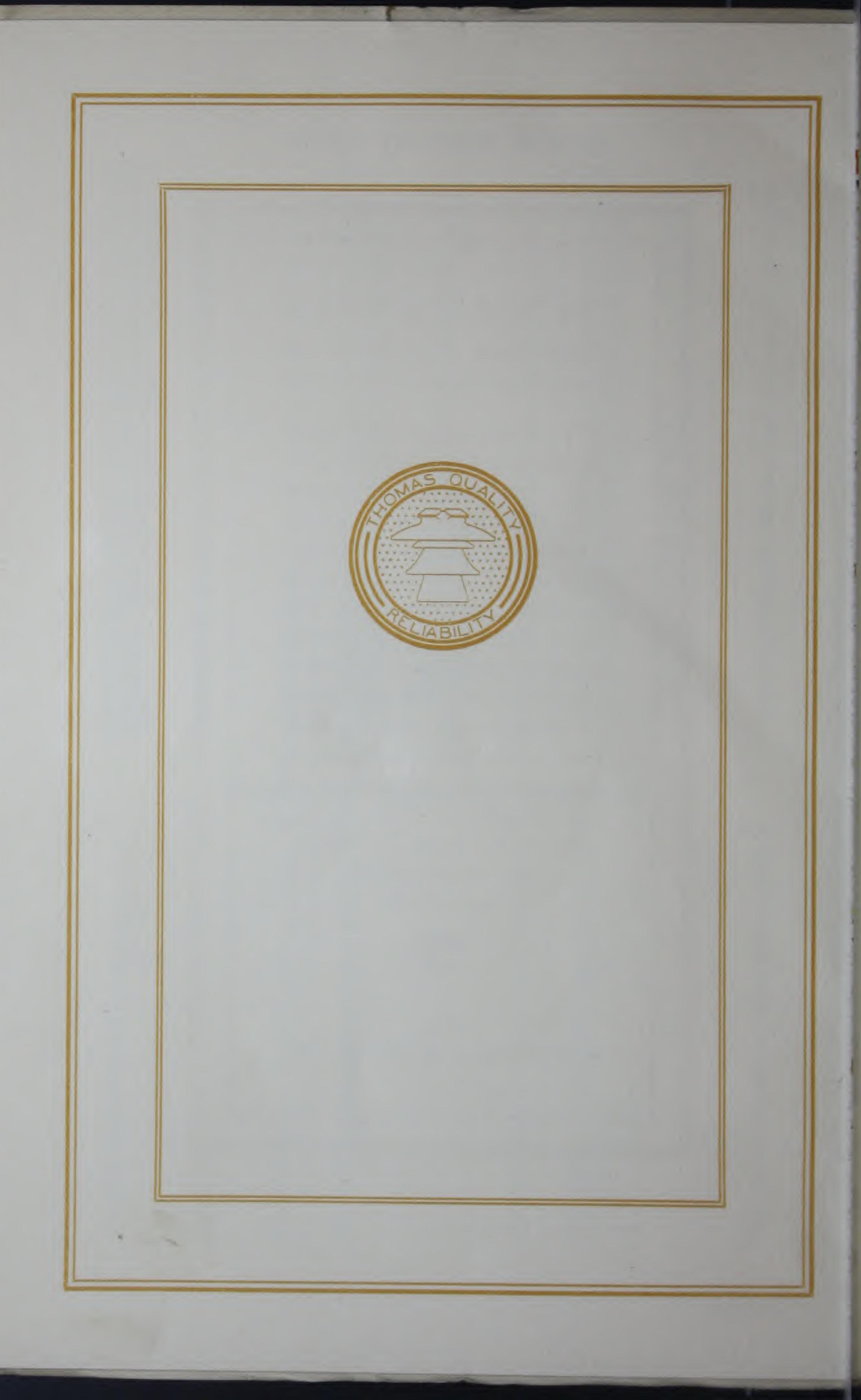
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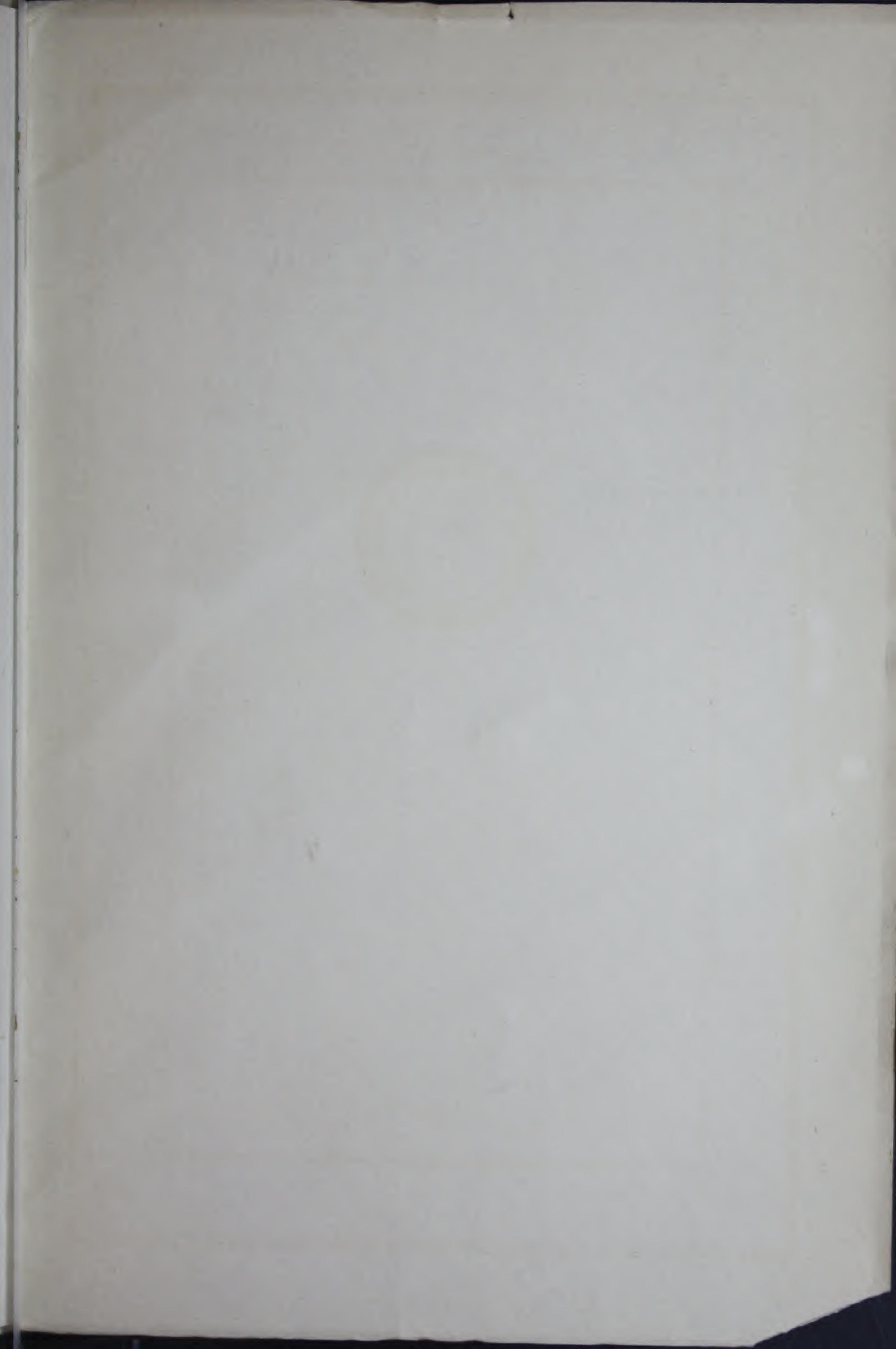
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T WAS our proud heritage to develop and produce the first all-porcelain Insulator in America to be used on High Voltage Systems. Since then, a quarter century ago, we have manufactured a large share of the High Tension Insulators to be used throughout the world. Our constant progress is our greatest assurance of the Dependability of our Product. Your Inquiries are respectfully solicited



The R. THOMAS & SONS CO.







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